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Original Communications.

AMPUTATION AT THE KNEE-JOINT.

By EDWARD S. WOOD, M.D., Cambridge.

AMPUTATION, or, more properly speaking, disarticulation at the knee-joint, is an operation which was resorted to many years ago, but has been regarded with distrust by surgeons of the present day, until attempts were made to revive it by Mr. Syme, of England, in an article published by him in 1845, and later by Drs. Markoe and Stephen Smith of New York, and Dr. Brinton, of Philadelphia, by whose efforts it has come to be regarded at the present time as one of the established operations in surgery.

This operation is said to have been performed several times in the 17th and 18th centuries, but very little was known about it until revived by Velpeau, who, in 1829, published the records of fourteen cases, thirteen of which were successful. Encouraged by such a record, he was induced to perform it himself, but with very poor success, nearly all of his operations proving fatal; the records of his cases at that time, however, state that the wounds were "plugged with charpie and left to Nature," which treatment resulted in "abscesses, sinuses and death." In consequence of the excessive mortality of Velpeau's cases, surgeons were again prejudiced against the operation, and little more was done or published concerning it until Mr. Syme's essay on "Amputation of the Knee" appeared in 1845, advocating the necessity of avoiding the danger arising from disturbing the medullary membrane of the femur, to the inflammation of which he refers the great mortality in cases of amputation of the thigh. In 1846, Mr. Carden, of England, began to amputate just above the knee, removing from one to two and one-half inches of the condyles of the femur, with very great success.

Influenced by the results obtained by Messrs. Carden and Syme, most of the noted surgeons of Great Britain followed their example, amputating just above the knee-joint, until, in 1857, Mr. Lane introduced into England the operation of disarticulation at the knee-joint proper, although it had previously been done once in Glasgow. Mr. Lane advocated it as being less fatal, and leaving a better stump than amputation through the condyles. Since 1857, this operation has been adopted by Sir Wm. Fergusson, Messrs. Coulson, Pollock, and other noted surgeons in Great Britain, and has also been warmly advocated by Drs. Markoe, Brinton and Smith, as above stated.

A distinction is drawn by Dr. Brinton between amputations at the *knee-joint* and at the *knee*, the former being pure disarticulations, the femur remaining intact, or at most only a very thin slice removed when the articular cartilage is diseased, while the latter (as Carden's and Syme's operations) are rather amputations just above the knee-joint, since from one to two and one-half inches of the femur are removed, and the patella generally dissected out.

As with all other amputations, especially in the lower extremity, many methods have been devised for performing it. The same incisions may be made for forming the flaps in disarticulating the leg at the knee-joint, as in amputating in the continuity of the bones, and in the majority of cases, perhaps, it makes but little difference which method is employed, provided that plenty of skin is obtained to cover the large end of the femur without any tension of the flaps. There is, however, a preference, as will be shown below. The methods which have been used are the circular; the method by lateral flaps; by a long anterior flap, which is called "Carden's" operation when a section of the condyles is made; by a long posterior flap with or without section of the condyles, which, in the former case, is called "Syme's" operation; by a long anterior and a short posterior flap; and by a combination of the long anterior and lateral flaps, as recommended by Dr. Stephen Smith, of New York.

There are, of course, many cases in which the surgeon is unable to select any special method of cutting the flaps, but must make them of whatever sound skin he can find, as in cases of accident requiring amputation, or of malignant growths involving the skin.

The indication of the very first importance is to have very abundant flaps, so that the extensive surface of the condyles and the articular cartilage may be amply and easily covered, else the cartilage will be exposed by sloughing of a portion of the flaps on account of the tension requisite to bring the cut surfaces into apposition, or by retraction of the flaps, which always takes place during the process of healing. Another point to be considered in the formation of the flaps of a knee-joint amputation especially is, that the bearing of the stump upon the artificial limb is directly upon the articular surface of the condyles, therefore no cicatricial tissue should be allowed to intervene between that surface and the artificial limb if it can possibly be prevented. A third consideration in any amputation as well as in that at the knee-joint is good drainage. And regard must be had as to the nourishment of the flap, with a view to prevent its sloughing if possible.

The operations of Carden and Syme are objectionable, since section of the femur is entirely unnecessary unless there is a scantiness of the flaps.

The circular method offers, perhaps, less advantages than any of the others, for although its supply of blood may be greater than that of any of the other forms of flaps, a pocket would be formed which would retain all the pus gravitating into it, and the cicatrix would fall upon some point of direct support.

The lateral flaps, although being large, well nourished, and offering good drainage, are objectionable, since the cicatrix is certain to fall directly over the face of the stump.

The long posterior flap is open to many objections. In the first place, a larger pocket for the gravitation of pus would be formed, than by any other method. It involves the section of a large mass of muscles which increases the shock of the operation, gives rise to a large suppurating surface, and seriously interferes with the accurate adjustment of the flaps; and large nerves which must be divided in the flap may become the source of pain by being brought directly over the face of the stump, and consequently liable to pressure, or by becoming involved in the cicatricial tissue. Moreover, by its weight and by its tendency to retract, it is liable to fall away and interfere with union by first intention, even if it does not expose the articular cartilage of the femur. It also requires that the ligatures should traverse a long distance before emerging from between the flaps.

The long anterior flap is preferred by most surgeons as the one which, when combined with a short posterior one, best fulfils all the necessary requirements, and offers the fewest objections. It must be made very long in order to amply cover the bone, and bring the cicatrix behind the face of the stump; consequently its free edge is liable to be poorly nourished and to slough. To guard against this as much as possible, as well as to assist in covering the bone, the base of the flap should be very wide, the incision commencing and ending from one to two inches behind the most posterior border of the condyles. This incision should extend down the anterior surface of the leg from three to four inches below the tubercle of the tibia. Thus the incision is in the most dependent part of the stump, allowing free exit for the discharge, and bringing the resulting cicatrix entirely behind the face of the stump. Moreover, all of the ligatures required are of the popliteal vessels, and consequently need not be brought in contact with the articular surface of the condyles at all. The object of the short posterior flap is to compensate in a measure for sloughing of the extremity of the anterior flap, and to lessen the chance of tension by retraction.

Dr. Stephen Smith, of New York, has devised a new method, which combines the long anterior and lateral flap methods, and has termed it "Amputation by Modified Lateral Flaps." His incision commences one inch below the tubercle of the tibia, extending downward and forward until it reaches the under surface of the leg, when it is made to curve toward the median line behind, and is then carried directly upward to the centre of the articulation. This incision has its counterpart upon the other side. The flaps are then dissected up, that upon the inner one having been made a little longer than the outer one on account of the greater length of the internal condyle. He claims for this flap less liability to slough than the long anterior one, a perfectly smooth covering for the face of the stump, and no point of contact between the cicatrix and the artificial limb, since the former sinks into the intercondyloid notch behind. This method, therefore, has all of the advantages of the long anterior flap, and has very much diminished the danger of sloughing, a point of no small consideration.

In disarticulating at the knee-joint, care should be taken not to wound the articular cartilage of the femur, unless it is so much diseased that it must be removed. The inter-articular cartilages should be removed with the tibia. In making the posterior flap from within outwards, the position of the head of the fibula must be remembered, lest it interfere with the progress of the knife; it is best, however, to dissect up the posterior flap before dividing the muscles, because including a large mass of muscle in the flap, as before stated, increases the shock, the suppuration, and the liability to hæmorrhage, besides interfering with the accurate approximation of the flaps.

The articular cartilage of the femur should in no wise be interfered with, unless it is diseased, in which case it is only necessary to remove the diseased portion by sawing off a very thin slice of the condyles, or, if the disease is very limited, removing it with gouge forceps. For, the removal of any portion of the femur only increases the shock, and opens the way to the medullary canal by exposing the cancellous structure, thus rendering the patient liable to suffer from any of the dangerous sequelæ of inflammation of the medulla, such as osteomyelitis, a fertile source of pyæmia. No dangerous symptoms have ever arisen which could be directly traced to the inflammation of the synovial membrane covering the articular surface of the femur. Indeed, when the articular cartilage is exposed by sloughing of the flap, no dangerous symptoms ensue; the exposed portion becomes necrosed, exfoliates *en masse*, and its place is filled by healthy granulations, or it assumes a grayish aspect and gradually disappears. In either case, the necrosed cartilage is separated in about three weeks. Thus it is only in cases of amputation for disease of the knee-joint, or in injuries involving the end of the femur, that necessity for interfering with the articular surface of the femur will arise.

The same rules are applicable to the removal of the patella, which should be excised only when diseased. Indeed, not always then, for Dr. Markoe reports one case in which the patella was left because it was firmly adherent, and the patient recovered with an excellent stump. The great danger arising from the removal of the patella is that by dividing the fascia lata of the thigh, pus will have an opportunity to burrow beneath it among the muscles, thus rendering incisions in the thigh necessary, and convalescence protracted.

The treatment of the stump after the operation differs in no way from that of any stump, except that the great tendency of the flaps to retract must be counteracted, unless there be a great redundancy. This can be effected by means of strips of adhesive plaster, the free ends of which can be fastened to a circular piece of wood, to which is attached a weight of from two to four pounds, the cord passing over a pulley at the foot of the bed. (The apparatus known at the Massachusetts General Hospital as the "Strawberry-box extension.") If a long anterior flap is made, great care must be taken not to allow any pressure to be brought to bear upon it, owing to the ease with which its extremity sloughs. Pus, when pent up, must be set free at once. This is liable to result from inflammation of the sheaths of the hamstring tendons, which is very rapid and leads to suppuration in from two to five days; it may be at once recognized by the great swelling, tenderness, pain and constitutional disturbance which it occasions. If the pus is not evacuated early, it will burrow up the thigh.

The advantages which amputation at the knee-joint has over that of the thigh are—

1st. That it is vastly less dangerous to life, the mortality being much less, as will be seen by the statistics given below. Prof. Syme states that the mortality after amputation of the thigh is from 50 to 80 per cent., which, he affirms, is directly traceable to the division of the femur, the compact tissue of which is very liable to exfoliate, and its lining membrane being very extensive and vascular is very apt to inflame. Moreover, there is less shock and less hæmorrhage. And it is almost an axiom in surgery that the removal of every additional inch from a limb diminishes the patient's chance for recovery.

2d. The better character of the resulting stump over that left after amputation of the thigh. It is stronger and more fit for locomotion, since the attachment of those muscles concerned in moving the limb are not divided. It is also more capable to bear weight and endure exertion, since the articular surface of the condyles is a healthy surface, and one accustomed to bear the weight of the body. It is a much less painful wound, the patient being able to raise and lower the stump for the removal and application of dressings, whereas the dressing of a thigh-stump is one of the most painful manipulations in surgery. In walking upon a knee-joint stump, the gait is like that of one with an anchylosed knee, the motion being forward and backward only, and not lateral.

3d. There is much less opportunity for pus to burrow up the thigh, because no muscular interspaces are exposed, there being no muscles divided except the heads of the gastrocnemius.

The principal objection which has been raised against the operation is the danger which must arise from the inflammation of so extensive a synovial membrane as that of the knee-joint. Practically this objection has no weight, since no bad symptoms have ever arisen which could be traced to this cause ; and, theoretically, it is invalid, since the danger in synovitis arises from the extent of the membrane, the motion of the joint, and the tension produced by the inflammation and effusion in a closed cavity, all of which causes are very much diminished, or removed entirely, by opening the articulation in performing the operation.

The wound should be made perfectly dry before being closed, on account of the secondary hæmorrhage which sometimes takes place from the azygos and inferior articular arteries, and from the sural when a large mass of the gastrocnemius has been included in the posterior flap. Hæmorrhage is liable to occur from the popliteal vein, which should also be ligated.

Amputation at the knee-joint may be done in almost all cases in which it was formerly customary to amputate the thigh in the lower third, provided that sufficient healthy skin can be obtained for an ample flap. Such cases are :—1st, Chronic diseases or abscess of the knee-joint. 2d, Compound comminuted fractures of the leg. 3d, Gunshot fractures in the vicinity of, or involving, the knee. 4th, Gangrene of the leg resulting from injury to the great vessels and nerves. 5th, Chronic diseases of the bones. 6th, Tumors of the leg.

As to the mortality after disarticulation at the knee in comparison with that after amputation of the thigh, statistics show a difference greatly in favor of the knee-joint operation. Dr. Brinton has collected records of 164 amputations at the knee-joint in civil practice. Of these, 53 died, showing a mortality of 32·3 per cent. In the Surgeon-General's office at Washington are recorded 211 amputations at the knee-joint, of which 106 were fatal, or 50·2 per cent. ; whereas the mortality after amputation of the thigh is set down by Mr. Syme at 50 to 80 per cent. That in the Paris hospitals from 1850 to 1861 was 52·7 per cent., and Dr. Gross gives as the mortality rate for 164 thigh amputations in American hospitals 41·4 per cent. The mortality of thigh amputations in American military practice during the late war was 64·43 per cent., which was 14·2 per cent. greater than that for knee-joint amputations.

Tabular records of 16 cases of knee-joint amputation performed at the Massachusetts General Hospital, have been published by Dr. James R. Chadwick among his statistics of "Amputations at the Massachusetts General Hospital" (*vide* Tables 13 and 14, pp. xii. and xiii., Supplement to Boston Medical and Surgical Journal, Vol. IX., No. 1). By these tables it will be seen that the mortality after knee-joint amputations at this Hospital has been 43·75 per cent., a ratio which is less than the average death rate after thigh amputations, although it compares unfavorably with the extraordinarily small mortality rate after thigh amputations at the same Hospital. The value of statistics, however, increases with the number of cases which they include ; and if we add the above 16 cases to the 164 cases which Dr. Brinton has collected, the mortality rate of 180 cases will be found to be 33⅓ per cent., as may be seen by reference to the tables given by Dr. Brinton in *The American Journal of the Medical Sciences*, April, 1868.

Table I.—*Results of American Amputations at the Knee-joint in Civil Practice.*

	Cases.	Recov.	Deaths.	Percent.
Prim. amput. after accident	50	28	22	44
Sec. " " "	31	18	13	42
" " for disease	30	25	5	16·66
Cause and period undetermined	6	6		
Total	117	77	40	34·19

Table II.—*Results of Foreign Amputations at the Knee-joint in Civil Practice.*

	Cases.	Recov.	Deaths.	Percent.
Prim. amput. after accident	9	6	3	33·33
Sec. " " "	6	5	1	16·66
" " for disease	32	23	9	28·75
Total	47	34	13	27·65

Table III.—*Aggregate Results of American and Foreign Amputations at the Knee-joint.*

	Cases.	Recov.	Deaths.	Percent.
Prim. amput. after accident	59	34	25	42·37
Sec. " " "	37	23	14	37·83
" " for disease	62	48	14	22·58
Cause and period undetermined	6	6		
Total	164	111	53	32·31

If the sixteen cases referred to above be added to Dr. Brinton's statistics, his Tables I. and III. will read as follows:—

Table I.

	Cases.	Recov.	Deaths.	Percent.
Prim. amput. after accident	55	30	25	45·45
Sec. " " "	31	18	13	41·93
" " for disease	41	32	9	21·95
Cause and period undetermined	6	6		
Total	133	86	47	35·33

Table III.

	Cases.	Recov.	Deaths.	Percent.
Prim. amput. after accident	64	36	28	43·75
Sec. " " "	37	23	14	37·83
" " for disease	73	55	18	24·65
Cause and period undetermined	6	6		
Total	180	120	60	33.33

A CASE OF MENORRHAGIA, FOLLOWED BY PELVIC ABSCESS.

Read before the Roxbury Medical Club, Dec. 14, 1871, by F. W. Goss, M.D.

Feb. 27, 1871, I was called to see Mrs. B., widow, æt. 47. The following is her history. She is the mother of three children, the last being 15 years of age. She states that since the birth of her second child, twenty-three years ago, she has had some uterine trouble, causing a good deal of backache and pain in the pelvic region, preventing her from walking any great distance. During the past year menstruation has been rather irregular in its periods, and at times somewhat profuse—symptoms which she supposed attributable to approaching cessation of that function—but there has been no prolonged period of amenorrhœa till recently.

Twelve weeks ago, menstruation ceased and did not appear for nine weeks; three weeks ago it reappeared and has continued up to the present time. For the past three days she has been flowing very freely, and begins to feel exhausted from the continued hæmorrhage. Has had no pain or tenderness in uterine region.

I ordered ergot and gallic acid, together with rest in bed. These remedies not seeming to decrease the flow, the next day infusion of digitalis was prescribed. On the morning of March 1st, the discharge still continuing abundant, a tampon was introduced, a vaginal examination having failed to detect any cause for the continued menorrhagia. The tampon was reapplied twice; the last two times a sponge tent being introduced into the cervix uteri. On the morning of March 3d, the hæmorrhage seemed to have nearly ceased, and the tampon was omitted.

Our patient remained quite comfortable till the evening of the 4th of March, when there was slight tenderness in the hypogastric region and some tympanites. Pulse 100. Pil. opii gr. i. was prescribed, to be repeated every four hours, if needed, and turpentine stupes were applied to the abdomen.

9, A.M., March 5th.—During the night she has had a severe chill, succeeded by feverishness. Now, pulse 128. Tenderness quite marked over uterus and in right iliac region. Wanders somewhat in mind. At 1, P.M., she was seen with Dr. Cotting, who advised a continuance of the opium *p. r. n.*, and fomentations to the abdomen.

March 6th.—General condition much as yesterday. Tenderness most marked in right inguinal region, where are perceptible fulness and resistance to the touch. On vaginal examination, there is a tender nodule posteriorly and to the right of the uterus. The resistance and fulness in the right inguinal region continued to become more defined. There was scarcely any vaginal discharge. Posteriorly and to the right of the uterus there was increasing fulness and tenderness. On the morning of the 11th the patient continued to have chills. Pulse 124. Abdomen was somewhat less tender, but the resisting mass in the right groin remained. In the posterior *cul-de-sac* of the vagina, filling it and projecting from it, was a mass, œdematous at its tip, pushing the os and cervix uteri forward and under the pubes. Satisfied that a pelvic abscess had formed, and that it was apparently pointing in the vagina posteriorly to the uterus, the question arose whether to leave it to evacuate itself spontaneously, or to open it artificially at the projecting point. I was inclined to the latter opinion; for although it seemed that nature would in time accomplish the opening in the favorable position in which the abscess was pointing, yet it is well known that she sometimes disappoints us, and the discharge takes place into some unfavorable locality, as the rectum or the bladder. Dr. Sinclair was called in consultation, and agreed as to the propriety of making an exploratory incision at the prominent point. Pus immediately issued from the minute incision which he made, and the cut being enlarged, some twenty-four fluid ounces of fœtid pus, mingled with a little blood, were discharged. After evacuation, a sound could be passed several inches in every direction into the sac of the abscess.

It was determined to make use of vaginal injections of a weak solution of carbolic acid twice a day, and also to frequently wash out the sac of the abscess with the same solution. Tonics and nourishing diet were prescribed.

The patient began to improve and continued to do so for a time. The discharge of pus became less in amount, without any return of the hæmorrhage. After a time, however, she became more feeble and the purulent discharge more abundant, owing, perhaps, to the want of proper nursing, to confinement in a small, poorly ventilated room, in addition to excessive anxiety for her daughter, who was brought to death's door by pneumonia. Accordingly, early in May it seemed best to remove her to the more commodious wards of the City Hospital, where she came under the care of Dr. Blake. The treatment there was very similar to that which had been prescribed at her home, the injections into the vagina and sac of the abscess with solution of carbolic acid being continued.

She remained in the hospital about two months—till early in July. At the time of her return to her home the abscess had nearly ceased to discharge, and she had improved in her general condition, though she was yet quite weak and emaciated. Continuance of the previous treatment for a short time resulted in the cessation of the purulent discharge. She steadily gained in flesh and strength, and is now about as well as she has been at any time for many years. During the past three or four months the catamenia have recurred at regular intervals.

This case, in its treatment and result, particularly suggests for consideration the mooted question of abstaining from, or resorting to, artificial means for the discharge of pelvic abscesses.

Reports of Medical Societies.

RHODE ISLAND MEDICAL SOCIETY.

The quarterly meeting of the Rhode Island Medical Society was held at the rooms of the Franklin Society on Thursday, Dec. 21.

Dr. Geo. L. Collins, President, called the meeting to order, and the records of the last meeting were read by the Secretary, Dr. C. T. Gardner.

The President appointed the following named members delegates to attend the meetings of different State Medical Societies for the year 1872:—

Maine—Drs. Bullock, Baker, Newhall.

New Hampshire—Drs. Capron, Drury, Garvin.

Vermont—Drs. Ballou, Brown, Wiggin.

Massachusetts—Drs. King, Ely, Mann.

Connecticut—Drs. A. R. Collins, Carr, Harris.

New York—Drs. Clapp, Keene, Ham.

New Jersey—Drs. Snow, Miller, Leonard.

The President also announced the appointment of the following named members to prepare and read papers at the next quarterly meeting.

Dr. David King, of Newport; Drs. W. O. Brown and C. T. Gardner, of Providence; Dr. James H. Eldredge, of East Greenwich.

Dr. C. T. Gardner, of Providence, reported to the meeting a very interesting case of "Hydatid Degeneration of the Kidneys," in a newly-born child, which occurred in his medical practice, with an exhibition of the diseased kidneys preserved in alcohol. Dr. G. gave a full report of the details of the case, which was the third instance in which it had occurred to the same mother, and some discussion followed the reading of the paper.

Dr. Thomas C. Lawton, of Cranston, reported a very remarkable case of "Extra Uterine Fœtation," which occurred in his practice in Cranston. He gave a very interesting account of the case, in which death occurred July 17, 1871, aged 62 years. A *post-mortem* examination discovered a fœtus at large in the abdomen, which, upon removal, weighed four and a half pounds, and had been considered a movable tumor by nine physicians, which had been borne by the mother for *twenty-nine years*, and always declared by her while living to be a child.

Dr. S. S. Keene, of Providence, reported a peculiar case of "Poisoning by external application of tincture of aconite root, through a wound in the index finger of the right hand," describing the effects of the poison, and the remedies effectually applied.

Dr. Albert G. Browning of Olneyville, next read a paper upon "Heredity and Hereditary Influences." The theme of the essay was hereditary transmission of physical and moral peculiarities and qualities, and especially of diseases. He also discussed incidentally the theories of Spencer and Darwin on the propagation of species.

Dr. C. W. Parsons, of Providence, then presented and read to the meeting a paper on "The Medical Relations of the Hydrate of Chloral." The paper of Dr. Parsons was long, but an able and exhaustive discussion and presentation of the merits of the new drug as a medicine, and especially a sleep producer.

The President invited remarks upon Dr. Parson's valuable paper, and Drs. O'Leary, Clapp, Caswell, Ballou, Newhall—all spoke of it in very complimentary terms, and gave their experience and methods of using chloral.

Dr. Clapp, of Pawtucket, moved that the paper be referred to the publication committee to be printed. After some general discussion of the subject, at half-past one o'clock a recess was taken to partake of the collation provided by the president.

On reässembling, Dr. Charles H. Fisher, of Scituate, read a paper upon the subject of "The Origin and Nature of Infectious Diseases."

The essay, in short, was an able argument in favor of the germinal theory of infectious diseases and contagion, and showed great familiarity with the most advanced medical investigations and scientific research, in both America and Europe.

The Board of Censors reported that Dr. Charles H. Bogman, of Providence, and Dr. James B. Hanaford, of Warwick, had submitted written applications for admission as Fellows of the Society, with the required recommendations. Upon the recommendation of the Censors, they were both unanimously elected.

On motion, it was voted to hold the next meeting of the Society in March, at the same place, and the Treasurer was instructed to provide a collation at that time at the expense of the Society.

The president read a communication (which he complimented as a model report, it being all written on a half-sheet of note paper) from a gentleman who has suffered for five years from a discharge in his side after an attack of pleurisy, and expressing the hope of obtaining relief by referring his case to the Medical Society. The communication was received and, after some discussion, was referred to the President.

Dr. Geo. E. Mason, of Providence, exhibited a human stomach diseased with cancer, preserved in alcohol, obtained from a patient who recently died at the Rhode Island Hospital.

Dr. George Capron, of Providence, reported two very interesting obstetrical cases which occurred in his practice, and the subject was discussed by Drs. Clapp, Brown and Garvin.

The President then stated that the meeting was open for general discussion of any of the papers which have been read, and pertinent remarks upon the several subjects that had been presented were made by Drs. Clapp, Garvin, Fisher, Arnold and Brown.

On motion of Dr. Clapp, the thanks of the Society were presented to the authors of the valuable papers that had been read, and copies of the same were requested to be referred to the Publication Committee for printing.

The meeting was then adjourned to meet again in the same place on the third Wednesday in March, at 10 o'clock, A.M.

Selected Papers.

ABSCESS OF THE LIVER. EVACUATION BY OPERATION. RECOVERY.

By H. M. Starkloff, M.D., Carondelet, South St. Louis.

Mr. H., a German, aged 50 years, had suffered from various troubles for nearly eighteen months, the time since he had arrived in this country. He had been treated repeatedly for malarial troubles during this time. In August he had suffered, judging from his own description of the case, from acute hepatitis, finding no relief.

On examination of the patient, I found him very much emaciated, complaining of constant and increasing pain in the shoulders and back; he was irritable in temper; had capricious appetite, languor, and persistent feverishness; was troubled with night sweats and had hectic fever; pulse small and rapid; complained of a burning sensation in the skin of the hands and feet; was sad and despondent, convinced that he would die. In fact, he presented all the symptoms indicative of suppurative inflammation of the liver. Besides the above, he complained of a deep-seated pain in the side. On inspecting the locality indicated by him as the place of pain, there was found a well-marked swelling with indurated base extending from the upper border of the seventh rib to a point on a level with the lower border of the tenth rib, and about an inch and a half from the median plane of the body. Upon palpation fluctuation was evident. After this examination, the patient was informed plainly and truly of his condition, and one of two alternatives offered, either to run the extremely precarious risk of waiting for the abscess to point and discharge itself, or to have it at once emptied of its contents by means of the knife and trocar. The patient was perfectly willing to abide by my decision. There were reasonable grounds for believing that an external outlet for the pus was the direction taken by the abscess. Besides, there was a hardened base to the swelling, and tenderness. Picturing to myself the possible consequences of the delay—the risk of rupturing the walls of the abscess by coughing, sneezing or the like, and the laceration of any adhesions which might have formed—made me speak somewhat warmly in favor of opening at once.

Assisted by Dr. Outten, I proceeded with the operation. Having determined as nearly as possible the limits of the abscess, the patient was laid upon his back, the upper part of his body bent forward, and the thighs somewhat flexed upon the abdomen. An incision about two inches in length was made over the abscess, dividing the skin, subcutaneous and adipose tissues, muscles, and aponeuroses. It was my intention to follow the plan of operation as recommended by Dr. Graves, of Meath Hospital, viz.: that an incision should be made through the skin, &c., to within a few lines of the peritoneum, and the opening then plugged up with lint, with a view of inducing adhesion; but feeling the peritoneum puffed out by the fluid behind, I determined at once to puncture and evacuate the contents of the abscess. Prior to evacuation, and desiring to avert danger as much as possible, a curved threaded needle was passed down the sides of the wound through the peritoneum, stitching the peritoneum to both sides of the wound, aiming to prevent the possibility of pus getting within the cavity of the peritoneum. The patient was then held on the edge of the bed, so that the front of the body was directed downwards towards the floor, as I desired to get the assistance of gravity and pressure, thus compelling a freer flow of the contained matter. A trocar was pushed into the abscess and a thick, greenish pus of ammoniacal odor withdrawn. The canula was then left in the cavity of the abscess, retained in position by adhesive straps, for three days.

The patient living six or eight miles in the country, I was unable to see him daily; but on the day after the opening of the abscess I visited him, and found him in a worse condition than before the operation: pulse small, fluttering, about 100 per minute; skin clammy. The pus escaping was now changed somewhat in color, becoming chocolate, slightly thinner, and flowing freely. Bowels constipated; appetite of but little moment. Patient in a very prostrate condition. Quinine, acids and stimulants were freely administered, and injections of tepid water made to relieve the constipation. This condition of things continued for a week. On Tuesday of the second week his condition was somewhat better; the discharge of pus lessened; skin moist but not clammy; slight appetite; bowels still inactive. From this time on his condition became daily better, so that by the end of the fifth week he had so far recovered that he was enabled to go about; appetite returning; skin moist, normal; the bowels regular, and the discharges natural and properly colored. On Sunday, of the sixth week, he came to my office; there was no discharge of matter, the opening having closed; no pain on pressure, but a little induration of the liver. He expressed himself as feeling perfectly well. Up to this time the liver seems to be acting normally.—*St. Louis Med. and Surg. Journal.*

A FULLY MATURED TÆNIA SOLIUM OR TAPE-WORM EXPELLED FROM A CHILD FIVE DAYS OLD.

By Samuel G. Armor, M.D.

The natural history of tape-worm parasites has been a subject of fruitful speculation, and, so far as I am aware, the case here reported is quite unique. The tænia solium, according to Küchenmeister's investigations, "only occurs in children who partake of hog's meat." Neither he nor Cobbold makes mention of the possibilits of a fully-matured tænia occurring in infantile periods of life. And Vogel says, in writing of tape-worm: "They are rarely found in children under one year of age, in nurselings probably never." This latter statement is in harmony with the generally-accepted view that "animal food, either raw or partly cooked, is the probable source of the tænia solium."

The theory appears to have been generally accepted heretofore, that the encysted parasites are taken with the food into the stomach, and that the embryo, set free from the covering of the egg by a process of digestion, passes into the intestine, fixes itself to the mucous membrane, and, by a process of budding, produces the long, tape-like series of the articulations, which are finally converted into the full-grown tænia. Whether this be the universally-accepted theory, or not, certain it is that the encysted parasite, found in whatever part of the body it may be, only develops to maturity in the *intestinal canal.* The query at once arises, therefore, How did the *cisticercus,* in the case here reported, gain entrance into the intestinal canal of the new-born infant? for it is difficult to arrive at any other conclusion, from the clinical history of the case, than that the worm was fully matured at the birth of the child.

Without offering any speculations as to how the young tænia gained its embryonic *habitat,* I merely copy the clinical record of a case which recently occurred in the Long Island Hospital, Brooklyn, N. Y.:—

Kate Quinn, aged 24, an Irish servant-girl, of apparent good general health, was admitted to the hospital September 3, 1871. Diagnosis—*parturition* and a *primipara.*

In less than an hour previous to her admission, she gave birth to a well-developed male child in the street, and, having no home, she was at once brought to the hospital.

Sept. 4th.—Mother doing well; child nurses vigorously, and is apparently well.

7th.—Child for the last fourteen hours has refused to nurse, and examination reveals *trismus,* preventing introduction of little finger into its mouth, and touching extremities induces slight tetanic spasms. Ordered mild anodyne, but with no relief.

8th.—Babe seen by Prof. Skene, who, supposing the child was suffering from intestinal irritation from some cause, ordered three one-sixth-grain doses of calomel, to be followed by oil, and at 7, P.M.—some ten hours after taking the first dose of calomel—the infant passed, *per anum,* two segments of what was at once recognized from its obvious appearance as a *tape-worm,* flat, perceptibly cornuted, and possessed of a slight wabbling motion of a minute's duration. The specimen, carefully picked out of the fæcal matter in the babe's diaper, was submitted to different members of the hospital-staff, placed under the microscope, and the diagnosis concurred in that it was well-matured tænia solium.

9th.—Trismus continues; small amount of mother's milk fed by spoon; at 5, P.M., three more segments of worm came away; ordered spts. terebinth, 15 drops in mucilage.

10th.—One more segment voided; trismus remains; spasmodic action from touching extremities less; takes milk from spoon eagerly, but has no power to grasp nipple; repeated spts. terebinth.

11th.—Another segment came away; still makes fruitless attempts to grasp nipple; ordered oil of male fern, 15 drops in mucilage.

12th.—Repeated the oil of fern, to be followed by small doses of castor-oil.

13th—One more segment passed; suspended medicine for a few days.

18th.—Two one-half-grain doses of calomel ordered at intervals of two hours; soon after the administration of last dose four more segments passed; trismus entirely gone; child nurses well, the mother having an abundant supply of milk; medicine discontinued.

October 18th.—Mother and child still in the hospital; both doing well; the child has passed several segments since last record, but none having the appearance of the head. Child has never taken any nourishment but the mother's milk.

The foregoing is the brief clinical record of the case; as to the facts stated there can be no doubt. The case was carefully and critically watched by Prof. Skene, of the hospital staff, who was on duty, and by T. H. Hutton, M.D., resident physician.

On October 2d, twelve of the segments passed were presented to the Long Island College Hospital Society for examination, and, at their suggestion, B. A. Segur, M.D., a gentleman of skill and experience in the use of the microscope, was appointed to make further examination of the specimens. At a subsequent meeting of the Society, Dr. Segur reported that "the specimens presented to him for examination had the obvious appearance of tænia, and under the microscope, with one-half inch objective, he was able to see the eggs, presenting the same size of joints passed by adults."

The specimens were subsequently presented to the Pathological Section of the Kings County Medical Society.

Can the mother communicate the germs of the parasite to the fœtus in utero? And, if so, how do they gain entrance to the intestinal canal?

To determine one of the questions, the mother, being still in the hospital, and having fully recovered from her confinement, was, on the 8th of November—about two months after the birth of her child—put upon treatment for tape-worm; although neither previous history nor present condition indicated the presence of tænia. She is an unusually stout Irish girl, of good flesh, good digestion, cheerful disposition, entire freedom from nervous disturbance, always rested well of nights, and never herself suspected the presence of tape-worm. However, for the purpose above indicated, the mother's bowels were thoroughly evacuated, and, while fasting, she was ordered an emulsion of pumpkin-seeds, which she faithfully took for twenty-four hours, at the end of which time she passed over seventy segments of tænia.

This completes the clinical history of a case which throws much doubt upon the present-received theories as to the probable and *exclusive* source of tænia. That the encysted parasites gain entrance to the stomach and bowels by means of animal food containing the parasitic germs, the experiments of Küchenmeister and others leave no room to doubt. But that they may also gain entrance through the mother to the fœtus *in utero* would appear to be equally well established by the case here reported.—*N. Y. Med. Jour.*

CARBOLIC ACID IN CHILDREN'S DISEASES.

By N. S. Davis, M.D., Chicago.

During the last two years, we have prescribed the carbolic acid very often, and in a considerable number of morbid conditions. In the various grades of irritation or morbid sensitiveness of the mucous membranes of the alimentary canal, especially in children, we have found it a very valuable remedy. A few cases will serve to illustrate more fully the application of the remedy than we could convey in any other manner.

Case I.—A. B., child eight months old, nursing. The bowels had been slightly loose for three or four days, the discharges thinner and more offensive than natural, but not more than three times a day, until July 3d, 1870, when it began to have active diarrhœa, the discharges being very thin and of a greenish color, accompanied by a prompt rejection of whatever it took into its stomach, either by nursing or drinking. It was not the active vomiting of severe cholera morbus, but that morbid sensitiveness of the stomach that causes rejection of the ingesta and serious diarrhœa. There was no febrile reaction, but rather paleness and coolness of the surface. The mother was directed to let the child nurse often, but only a little at a time, and give it no drinks except one or two teaspoonsful at a time of cold water and mucilage; and the following prescription was given:—

℞. Carbolic acid crystals,	gr. iij.
Glycerine,	ʒss.
Camp. tinct. opii,	ʒss.
Water,	ʒij. M.

And give 20 drops every two hours until the stomach and bowels are quiet.

When there have been no evacuations up or down for twelve hours, then extend the intervals between the doses to three hours. Under this treatment the vomiting ceased during the first twelve hours, but moderate diarrhœa continued, and the medicine was also continued at intervals of three hours. On the third day after commencing the treatment there was no vomiting, and only two intestinal evacuations, more healthy in character. The same medicine was continued four times a day for three days longer, when the child appeared well, and treatment was discontinued. During the summer of 1870 we treated more than seventy cases similar to the one just related, embracing children from six months to two years of age, with the same formulæ, and nine out of ten speedily recovered. Such of the children as had been weaned were fed on small but frequently repeated doses of a thin porridge, made of sweet milk and wheat flour. In a few instances the medicine appeared to exert no influence over either the vomiting or the diarrhœa, and other remedies were made available. It will be remembered that the cases here alluded to were recent and simple in their nature. The following will illustrate another class of cases of greater severity, and of very frequent occurrence during the months of July, August and September.

Case II.—July 27th. Called to C. T.'s child, aged 15 months, still nursing. The child had commenced to have moderate diarrhœa, or "summer complaint," as it is termed, during the first week in July, which had continued, with only occasional vomiting when it took too much into its stomach, until the 24th. It had become pale and thin in flesh, but still most of the time cheerful, and the mother, as is usual in such cases, attributing the looseness to "teething," had used no remedies, except one or two doses of castor oil. During the night of the 24th the child became more restless, the bowels moving every two or three hours, and the stomach promptly rejecting whatever was taken into it. The intestinal discharges were very thin, yellow and offensive. The following day a physician was called, who prescribed suitable doses of anodyne and alterative powders, mustard cataplasms over the epigastrium, and the next day some laxative mixture, sufficient to move the bowels. Almost every dose of medicine, however, was rejected by vomiting, and the original symptoms continued without abatement. When we were called, on the 27th, the child was much emaciated, the countenance haggard, extremities cool, pulse quick and feeble, paroxysms of great restlessness, with intervening somnolency—almost every paroxysm of restlessness ending in a discharge from the bowels of a greenish yellow color, and almost as thin as water, with little specks of mucus in it. There was pretty uniform vomiting within a few moments after nursing or taking any kind of drink. The urinary secretion was very scanty. We advised the mother to let the child nurse only a little at a time, but often, and to give no other drink except teaspoonful doses of ice-cold water, of which it was very fond. For medicine we directed the following:—

℞. Carbolic acid crystals, grs. iij.
Glycerine (pure), ℥ss.
Water, ℥ijss. M.

And give half a teaspoonful every hour until the vomiting ceases, and the breast milk is retained well.

Also the following:—

℞. Nitrous ether, ℥ss.
Camph. tinct. opii, ℥ss. M.

Give 20 drops in half tablespoonful of sweetened water every three hours, to help allay the irritability of the bowels, and promote more active secretions of the kidneys.

July 28th.—The vomiting has nearly ceased; the evacuations from the bowels are less frequent, but nearly the same in character, and the urine only slightly increased in quantity. Ordered both prescriptions continued, but the solution of carbolic acid only every three hours, making it come alternately with the paregoric and spirits of nitre.

July 29th.—Child nurses well, and retains all it takes into its stomach; countenance much improved; urine more abundant, but the intestinal discharges continue to occur every three or four hours, and remain thin and pretty copious. Directed the carbolic acid solution to be continued every six hours, and, half way between, one of the following powders, viz.:—

℞. Subnit. bismuth, grs. xii.
Pulv. geranium root, grs. iv.
Pulv. Doveri, gr. i. M.
Divide into six powders.

Under this treatment the bowels steadily improved, and on the 1st of August the carbolic acid was omitted, and only one powder given each night and morning; and after three days more they were dispensed with altogether, the child needing no further treatment. As already remarked, this case is the representative of a large number that were treated, and in nearly all of which the carbolic acid was of great service in allaying the gastric irritation and vomiting, but in all, or nearly all of which, other remedies were required to aid in restoring a healthy condition to the bowels. In the first stage of active cholera morbus, both in children and adults, we have many times promptly arrested the active symptoms by using the following formula:—

℞. Carbolic acid crystals, grs. vi.
Glycerine, ℥ss.
Camph. tinct. opii, ℥jss.
Water, ℥ij. M.

Give to adults one teaspoonful every half-hour or hour until the symptoms are relieved, and doses proportionately less for children. In active dysentery or acute inflammation of any part of the mucous membrane of the alimentary canal, we have found little or no advantage from the use of carbolic acid, but in many cases of chronic dysentery, accompanied by flatulency and gastric irritability, it has afforded much relief when given with paregoric, as in the last formula stated above, and repeated every three, four or six hours.—*Chicago Medical Examiner.*

A Method of applying dry Heat and Cold suggested by Dr. Roberts, of Manchester, consists in the arrangement of a continuous coil of thin rubber tubing on a backing of canvas, to which it is to be cemented. One end of the tube can be connected with an elevated vessel containing water of the temperature desired, and the other end placed in a receiving vessel. The pad is to be applied to the surface the temperature of which it is desirable to modify.—*British Medical Journal.*

Medical and Surgical Journal.

Boston: Thursday, January 4, 1872.

A NEW VOLUME.

With the dawn of the new year, we close the covers of the old volume and open those of the new—the eighty-sixth since the Journal was placed before the medical profession. In doing so, we take the opportunity of tendering to our readers, our medical brethren, and our fellow-Editors, our kindest wishes for a happy and prosperous year. We feel it a privilege, also, to thank those of our friends who have aided us by contributing to our pages the results of their investigations in medical science, and we repeat the invitation, which we have previously given, for the renewal of similar favors from our fellow-practitioners, in whatever part of the country they may reside.

The editor of a journal which is supposed to be one of the exponents of medical science, which is to contain all that is new, interesting and practically useful to be gleaned from the outside medical world, the forerunner as well as the chronicler of the medical mind, has no light duty to perform. Moreover, in a medical community like that of our New England States, the profession is constantly losing, where it should not, a large amount of valuable experience—the interesting cases which, in almost every one's daily work, might furnish materials for a valuable article; our hospital clinics; our society proceedings; and thoughts of a more varied character on the various departments of medical and allied studies. The Editor, therefore, begs your coöperation with him in advancing the interests of the profession, so far as possible, by seizing the opportunities, fugitive in their nature, for so much valuable information; and by writing and placing in his hands for publication, articles, reports, clinics, and other material for the Journal. Only by such assistance can he realize the wish of every reader of the Journal, to find on his table each week a thoroughly valuable medical periodical.

The past year has been filled with incidents of great moment to the medical profession. The advance in medical education, the discussion of important points affecting the status of physicians in all parts of our country, the occurrence of severe epidemics in our own country and abroad, with the opportunities for the study of diseases thus offered, the death of many eminent medical and scientific men, all mark the past year as an important one in the annals of medicine. The coming year is pregnant with new interests, the medical mind is ready to grasp new truths in science, and new methods for alleviating the suffering of the human race; new facts will constantly be brought to light which will, each and all, take their part in elevating and improving the position of the profession. It will be the aim of the Editor to bring all such matters of interest before the readers of the Journal in such a manner as shall merit their approbation.

In entering on a new volume of the Journal, we have associated with ourselves Dr. F. W. Draper, a gentleman personally well known to the profession in Boston as being an intelligent and capable physician, and thoroughly devoted to the best interests of the profession. During the past year, he has rendered the Editor material assistance in reporting the proceedings of societies, making translations, &c. He is, perhaps, best known to the profession in general by the faithful work he has accomplished in connection with the reports of the State Board of Health.

THE REPORT OF THE SURGEON GENERAL OF MASSACHUSETTS.

The Surgeon General of Massachusetts has transmitted to His Excellency, Gov. Claflin, the annual report of the Department under his charge.

After alluding to the operations of his Department during the past year, and the manner in which he has discharged the various trusts imposed upon him by law, Dr. Dale concludes his report as follows:—

Herewith, I have the honor to present for your Excellency's information, the report of Col. Yorick G. Hurd, Medical Director of the Division, volunteer force of the State.

An inspection of the sanitary condition of the several camps authorized by law, shows, so far as the duty of the Medical Staff was concerned, the same gratifying results as in former years.

The medical inspection of the Independent Corps of Cadets at Nahant was, by the order of the Commander-in-Chief, made by the Surgeon General. In this connection, permit me to remind your Excellency that the surgeon of this command, Major B. Joy Jeffries, was the first surgeon examined after the reorganization of the Militia under Sec. 32, Chapter 219 of the Acts of 1866, which is as follows:—

"No surgeon or assistant surgeon shall be commissioned until he shall have furnished satisfactory evidence to the Commander-in-Chief that he is competent to perform the duties of his office."

Although satisfied of the ample qualifications of this officer for this post by official connection with him in the various positions he filled most creditably during the war, I could have complied with the requirements of law and furnished to the Commander-in-Chief satisfactory evidence of his competency from my own knowledge; but deeming it important that a precedent should be established when distrusting my own judgment or on the occasion of exigencies when it might be the pleasure or duty of the Governor to seek necessary information from other sources, I directed him, by the order of the Commander-in-Chief, to appear before the Medical Commission of Massachusetts, a Board of Examining Surgeons appointed by the late Gov. Andrew, on the order of the Secretary of War. Receiving from this Board a thorough examination and approved by them as competent, his appointment was accordingly recommended.

Thus a precedent was established, and time has shown the propriety of this action.

I have taken opportunity in previous reports presented to express my satisfaction that so many well-trained surgeons who won honorable distinction in the war, and who were examined by this Board prior to receiving their commissions, should consent at considerable sacrifice to enter the volunteer force of the State. I have felt that these well educated men with their experience and observation gave character to the service, and it would be natural for me to resist in every honorable way, so far as any responsibility was placed upon me, any attempt to impair their usefulness, and at all times to oppose the introduction of any element calculated to excite discord and lessen the harmony and good feeling which has characterized this branch of the service.

Whilst a courteous deference should be paid to the opinions of Generals in command and their staff officers, I trust I shall never forget that the private soldier also bears the fatigue and peril of the service. With the recollection of the privation and suffering which many now in the service of the State experienced in camp, hospital or rebel prison, I should be false to my oath as well as unmindful of the associations of the past, if I failed to afford them, in peace or war, competent surgical skill and proper medical experience.

Under the provisions of Section 66, Acts of 1866, the duties of the head of this department are thus defined: "The Surgeon General, under the direction and supervision of the Commander-in-chief, shall purchase and issue all medical, surgical and hospital supplies, and perform such other duties appertaining to his office as the Commander-in-chief shall from time to time direct." It will thus be seen that the amount of responsibility placed upon this officer is not of an extraordinary character, so far as the medical supervision of the volunteer force of the State is concerned, and the performance of these duties requires but little time and a small appropriation.

The office would have been an honorary one at the close of the war had not successive legislatures by wise and humane legislation imposed upon me other duties which, if performed promptly and conscientiously, fully occupy my time.

I respectfully ask the attention of your Excellency to the valuable suggestions made by Lieut.-Col. Ingalls, Medical Director 1st Brigade, as confirmatory of the views of the medical staff, in regard to the efficiency of the troops, so far as their physical condition is concerned, when they are in the service of the State.

I cordially concur with Col. Hurd, Medical Director of the Division, in the closing remarks of his valuable report.

"It gives me pleasure to be able to assure you that the Medical Staff of the Volunteer Militia are unremitting in their efforts to promote the efficiency of the service and sustain unimpaired the honor of the profession and the reputation won by Massachusetts Medical Officers in the field.

"By the resignation of Medical Director Stedman of the First Brigade, the same loses a valuable and efficient officer. Courteous, energetic, possessed of rare executive qualities, his duties were always promptly, faithfully and skilfully performed."

The vacancy occasioned by the resignation of this officer has not yet been filled, though the duties have been satisfactorily performed by Surgeon White, 1st Regt. Mass. Vol., acting Medical Director.

Recalling your Excellency's attention to my resignation, placed in your hands on the 21st of January, 1870, I again express my cheerful readiness to retire from the duties of this position. Your Excellency is able to judge whether I have obeyed promptly the orders of my superior officers as well as those prescribed by law through the action of successive legislatures.

In taking official leave of your Excellency, I desire to add that it has been my good fortune, in the discharge of the severe duties imposed on me since the 16th day of April, 1861, to have served under Chief Magistrates distinguished for loyalty and devotion to the public service. I trust it will not be presumptuous in me to further remark that each and all of them have also believed that to sustain a high standard of medical science in this Commonwealth was equally a duty, and none have been more conspicuous in this respect than your Excellency.

With a grateful remembrance of your kindness to me, both personally and officially, I remain, with high respect, your obedient servant, Wm. J. Dale,
Surgeon-General.

Physician's Dispensary—Divided Medicines.—We have been furnished by the proprietors with a neat little pocket *etuis*, containing twenty-four samples of the "Divided Medicines," noticed by us some time ago. If the squares actually contain the medicines they are said to, and are found to be uniform in character, this method of preparing medicines will be found a very handy one for country practitioners and others who carry their own medicines.

Vaccination.—Our City Physician calls the attention of all good citizens to the importance of vaccination at the present time, when smallpox has shown itself so prevalent in other places, although Boston is, thus far, comparatively free from the disease. The immunity is not likely to continue, if the unprotected portion of the population do not take the means, which science offers, to protect itself. The subject is one which is of importance at this time, and every physician should encourage perfect protection among the members of his clientelle.

Amputations at the Massachusetts General Hospital.—We place before our readers in an appendix to this number of the Journal a series of tables containing the results of about 700 amputations performed at the Massachusetts General Hospital, which cannot fail of proving both interesting and valuable.

Stone in the Bladder, with a Nucleus of Bone. By B. B. Leonard, M.D., West Liberty, Ohio.—*History.* About 7 years ago, F. H., then 8 years old, had periostitis, with disease of the femur near the trochanter minor. The case was neglected, and exfoliation of the bone was the ultimate result. In process of time the external openings healed, and the lad made little complaint. Three years ago he became unable to retain urine, and it escaped by a constant dribbling, but he did not complain of much pain. In this condition he continued until March last, when he came under my care, and, suspecting the existence of stone, I made several attempts to discover its presence. In April, I had made for the purpose a sound of more than ordinary curve, with which I detected a large stone, almost entirely encysted in the anterior wall and upper fundus of the bladder. Having prepared the system for the necessary operation, and assisted by Drs. Jones, Pearce, Cretcher, and others, I proceeded, in the manner described by Cheselden, to remove the calculus. On reaching the offending body, I found it firmly imbedded in the wall of the bladder, and almost covered with firm membrane. So firm and strong were the adhesions that much force was required to dislodge the calculus, which was too large for removal intact. Crushing was immediately effected, and fragments weighing *three and a half* ounces removed.

When the staff was withdrawn—which was done with difficulty—a fragment of bone, half an inch long and three lines wide, was found lodged in the groove. This fact gave rise to the suspicion that fragments of exfoliated bone from the femur had penetrated the bladder and formed a nucleus around which the calcareous deposit had accumulated, and an examination of the fragments revealed the fact. The lad made a good recovery, and in seven weeks was able to resume day labor.—*Cincinnati Lancet and Observer.*

Cæsarean Section after the Death of the Mother, with the Preservation of the Child. By M. Moliniere, Interne of Necker Hospital, Paris.

Rosalie B., lacemaker, aged 25, entered the Necker Hospital, ward St. Eulalie, No. 22, August 29th, 1868. At the moment of her entrance, she could hardly respond vaguely to questions that were addressed to her. She said that she had been suffering for ten days only. She complained of pain in the belly, had a slight cough, frequent diarrhœa, had no eruption on the abdomen—was pregnant, and in the ninth month. Since the commencement of her pregnancy she had had many attacks of convulsions. Eight days after her admission, she had an attack followed by four or five others. These attacks, according to the report of the Sister of Charity, were very violent and resembled epilepsy; the patient was in a state of complete insensibility, and had fallen from her bed repeatedly. The urine had been frequently examined, but no albumen had been discovered.

The 9th of September, she had a final attack, and died half an hour afterwards. The operation should have been performed by my colleague, A. Hybord, interne of the ward, but he was absent, and I being on duty it devolved on me.

Some minutes after death, I incised the abdomen, layer by layer, in the median line, until I arrived at the bag of water, which I opened in the director. The child did not present any sign of life. I made insufflation, mouth to mouth, and also artificial respiration for some time without success. We continued to make artificial respiration, and rubbed the fauces with a feather. It seemed that the child breathed, and soon we had the happiness of hearing it cry. It was a girl, very strong and well formed; she continued to live and was baptized. At the end of some days she was sent to the foundling asylum.—*L'Abeille Medicale*, Oct. 14, from *Gazette des Hôpitaux*.

Cause of the Occurrence of Labor at the close of the ninth Month of Utero-Gestation.—Professor Alexander R. Simpson, in his introductory lecture (*Edinburgh Medical Journal*, December, 1870), gives the following explanation of this :—"Since the true nature of the deciduous membrane came to be fully understood, it was natural to seek in the changes which it undergoes for an explanation of the cause of the occurrence of labor at the close of the ninth month of utero-gestation. The search has not been fruitless; for it has been found that in the natural course of development the decidual membrane at this period has undergone a degree of fatty degeneration which has brought it to the last stage of its existence, when it would either require to be melted down and absorbed, or be thrown off as a foreign substance. The same change occurs in it at an earlier date, if through some disease an end be put to the life of the fœtus, and in such a case expulsion of the dead child does not take place until the time has been given for the degeneration to occur in the decidua, which leads to its being loosened from the uterine parietes and reduced to the condition of a foreign body. The observation of this phenomenon has led by a beautiful induction to the employment of the simplest, safest and surest means of bringing on labor by imitating the process of nature and producing an artificial separation of the membrane from the interior of the uterus in those cases where, to save the life of the child and to lessen the mother's risk, it is found needful to induce the labor prematurely.—*Med. News and Library*.

Carbolized Atmosphere in the Treatment of Blood-Poisoning.—In the London *Practitioner* for January, Dr. John Wood commends very strongly a new method of using carbolic acid, and reports two cases of severe traumatic erysipelas and one of pyæmia, in which he thinks recovery was largely attributable to the method of employment. To the cradle for keeping the bedclothes off the affected part, and to various projecting portions of the bed, he hangs little muslin bags containing a powder saturated with carbolic acid. In this way he saturates the atmosphere about the patient and the wound with the vapor of carbolic acid, and produces constitutional effects without disturbing digestion. In the pyæmic case, the breath and urine were very strongly impregnated with the acid, and the latter for a week had the characteristic slate-colored film and deposit. This deposit was analyzed, and found to be identical with blue indigo, and, therefore, was probably formed by a transformation of the yellow indigo of the excretion. The pyæmia followed a wound of the right hand. The case was remarkable for the complete and rapid recovery of the patient, with a stiff knee-joint, after the total necrosis and removal of the patella through a free opening for the evacuation of the pyæmic abscess of the joint.—*Philadelphia Medical Times*.

Medical Miscellany.

MUSEUM OF DERMATOLOGY.—Physicians are cordially invited to inspect, at No. 24 Charles St., from 1 to 3, P.M., daily, a large recent addition to the Museum of Dermatology forming for the Harvard Medical School.

THE CHILDRENS' HOSPITAL.—At the annual meeting of the Corporation of this institution, held on the 28th ult., at 21 Sears Building, the following gentlemen were elected officers for the ensuing year:—

President, Nathaniel Thayer. Vice President, Geo. T. Bigelow. Treasurer, John G. Wetherell. Secretary, Francis H. Brown. Managers, Chandler Robbins, Albert Fearing, N. H. Emmons, Charles Faulkner, Robert C. Winthrop, William Ingalls, Charles H. Fiske, Samuel A. Green, Isaac Thacher, Jere. Abbott, George D. Howe.

THE DENTAL COSMOS.—We are fortunate in numbering among our exchanges several excellent dental journals. Perhaps the best of them is the *Dental Cosmos*, which has now closed its thirteenth volume. At this time its able Editors, Drs. McQuillen and Zeigler, are about to retire. The *Cosmos* will, however, still be ably conducted, and will without doubt continue to be the exponent of all that is new and valuable in a profession that is making rapid strides towards perfection.

NEW PRIZE.—The Academy of Medicine of Turin has announced a new prize under the name of the *Premio Bianco*, which will be awarded in the beginning of 1873. The value is 1000 francs; the subject is "Matrimonial Hygiene."

PROPTER OVARIUM EST MULIER.—For a very long time the womb was regarded as the chief and central organ in the healthy female genital system. It has been dethroned, and, in the meantime at least, the ovary holds the first place without dispute. The uterus is merely the nest or organ of pregnancy.—Dr. J. M. DUNCAN, in *Edinburgh Medical Journal.*

OUR neighbors in the XIIth Ward of Boston will not fail to have their attention attracted by the Advertisement of Messrs. I. B. Patten & Co., old and well-known pharmacists, who have opened a branch store at the corner of Seventh and F Sts.

SUGGESTIONS TO CORRESPONDENTS AND READERS.—Articles intended for publication in the JOURNAL must be written plainly and distinctly, on one side of the paper only, properly paged, and with suitable divisions into paragraphs. If so prepared, it is seldom if ever necessary that a proof of the article be sent to the writer. The punctuality required in the issue of a weekly periodical allows little time for proof-alterations or additions. When a proof is sent out, it should be returned to the office *promptly*, as the press in no case will be kept waiting for it.

Anonymous communications will not be published, unless the name and address of the author are entrusted to the Editor.

Accepted articles will generally be inserted in the order in which they are received; this rule will be waived, however, should the nature of the subject or the interest of the Journal require it.

Rejected articles will be returned, if stamps for the requisite postage be sent.

Letters, requiring answer, addressed to the Editor or Publishers for the benefit of the writer, must enclose stamp to ensure a reply.

Original articles, reports of societies, items of medical news, and professional communications of all kinds will be gladly received from members of the profession, wherever resident, so far as they pertain to topics of general interest. In the transactions of societies, the discussions which relate to questions of local importance, reports of business details, debates *in extenso*, and personalities of all kind, will, as a rule, be excluded.

The Editor does not hold himself responsible for the views and opinions expressed in articles published; nor will their publication be considered, in any way, as his endorsement of their sentiments.

TO CORRESPONDENTS.—Communications accepted:—Proposed Improvements in Printing and Writing.—A Case of Poisoning by Opium.—A Case showing great tenacity of Life after Gun-shot Injury to the Spinal Cord.

DIED,—At Charleston, Nov. 16th, Dr. Douglass R. Bannan, Surgeon U. S. N.

Deaths in fifteen Cities and Towns of Massachusetts for the week ending Dec. 30, 1871.

Cities and Towns.	*No. of Deaths.*	*Prevalent Diseases.*	
Boston	119	Consumption	52
Charlestown	20	Pneumonia	34
Worcester	26	Scarlet fever	20
Lowell	9	Croup and Diphtheria	8
Milford	1	Typhoid fever	5
Chelsea	6		
Cambridge	15		
Salem	15		
Springfield	5		
Lynn	8		
Fitchburg	2		
Taunton	2		
Newburyport	3		
Fall River	17		
Haverhill	5		
	253		

Of the deaths from scarlet fever, eight were in Worcester and six in Salem. Boston reports two deaths from smallpox.

GEORGE DERRY, M.D.,
Secretary of State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, Dec. 30th, 119. Males, 68; females, 51. Accident, 2—apoplexy, 1—aneurism, 1—bronchitis, 3—congestion of the brain, 1—disease of the brain, 7—cancer, 2—cyanosis, 2—consumption, 25—convulsions. 3—croup, 1—debility, 4—dropsy of brain, 2—diphtheria, 2—erysipelas, 2—bilious fever, 1—scarlet fever, 2—typhoid fever, 2—disease of heart, 8—homicide, 1—intemperance, 1—disease of the kidneys, 1—congestion of the lungs, 4—inflammation of the lungs, 14—marasmus, 3—old age, 4—pleurisy, 1—premature birth, 3—peritonitis, 1—puerperal disease, 1—pyæmia, 1—scalded, 2—scrofula, 1—smallpox, 2—spina bifida, 1—stomatis, 1—suicide, 2—unknown, 4.

Under 5 years of age, 44—between 5 and 20 years, 4—between 20 and 40 years, 32—between 40 and 60 years, 18—above 60 years, 21. Born in the United States, 79—Ireland, 28—other places, 12.

BOSTON MEDICAL AND SURGICAL JOURNAL.

AMPUTATIONS AT THE MASSACHUSETTS GENERAL HOSPITAL, BOSTON, MASS.

Compiled by JAMES R. CHADWICK, M.D.

LATE SURGICAL HOUSE OFFICER.

MAY 1, 1871.

The following tables comprise the results of 699 major amputations of the limbs. The larger part have never before been made public. In 1851, Dr. Hayward published a list of the amputations performed in this Hospital up to that date, but with so few details, that in making up the present series it has been found imperatively necessary to refer to the original records in order to obtain all the data bearing upon the cases recorded. No pains have been spared to render the abstract correct and complete.

The results are compared with those obtained, so far as published, in the New-York City Hospital, the Pennsylvania Hospital and the Boston City Hospital.

Of the 699 cases, the result in seven is unknown, either from imperfection in the records, or in consequence of early removal from the Hospital—of course these do not enter into the estimate of mortality.

EXPLANATION OF TABLES.

"Primary" signifies within 24 hours of the time of the accident.

"Secondary" any time after that period.

"Pathological" includes all amputations for non-traumatic cases.

"Duration" signifies the period from the date of the accident to the date of the operation.

"Length of time" signifies the period from the date of the operation to the date of the discharge.

The fractions $\frac{1}{3}$, $\frac{2}{3}$, $\frac{3}{3}$, designate, respectively, the upper, middle and lower thirds of the limb; and $\frac{1}{3}$—$\frac{2}{3}$ designate the junction of the upper and middle thirds, &c.

There have been no amputations at the elbow joint, and only two at the wrist joint, which latter have been included in the tables, with the forearm.

As my friend Dr. Wood has already tabulated the amputations at the knee joint, they are, with his permission, incorporated in this paper, together with his deductions from them.

Three amputations at the ankle joint—one by each of the three methods of Roux, Syme and Liston—have been included with those of the leg.

In all fatal cases where the cause of death is not especially stated, it may be attributed to exhaustion, although in a few of these pyæmia was suspected.

Table 1.

AMPUTATIONS AT SHOULDER JOINT.—TRAUMATIC—PRIMARY.

No.	Operator.	Date.	Occupation.	Sex and Age.	Nature of Injury.	Duration.	Method of Amputation.	Result.	Length of Time.	Details.
1	J. M. Warren	May 16, 1851	Laborer	M. 32	Comp. com. fract. of arm	3 h.	Flap	Recovery	25 d.	Crushed between rollers; erysipelas.
2	Townsend	Sept. 27, 1851	"	M. 24	" " " "	2 h.	"	"	63 d.	Mutilated by machinery as high as ⅔.
3	"	Aug. 15, 1852	Mechanic	M. 21	" " " "	10 h.	"	"	65 d.	R. R. accident; lacerated up to axilla.
4	"	Sept. 9, 1852	Laborer	M. 29	" " " "	13 h.	"	Death	6 d.	Comp. fracture of scapula and fracture of clavicle.
5	"	Aug. 15, 1855	Mechanic	M. 27	" " " "	1½ h.	"	Recovery	132 d.	R. R. accident; comp. fracture of leg; intoxication.
6	Gay	Aug. 10, 1855	"	M. 23	" " " forearm	2 h.	"	"	74 d.	Delirium tremens; sloughing of flaps.
7	"	Aug. 28, 1857	"	M. 38	" " " arm	2 h.	"	Death	37 d.	R. R. accident; incised wound of thigh.
8	Cabot	Nov. 23, 1859	Laborer	M. 32	" " " forearm	2 h.	"	"	4 d.	Laceration of arm; delirium tremens.
9	Bigelow	Jan. 6, 1860	Machinist	M. 50	" " " arm	2 h.	"	"	20 h.	R. R. accident; delirium; d. from shock.
10	Cabot	Aug. 22, 1860	Brakeman	M. 32	" " " "	8 h.	"	Recovery	50 d.	" " scalpwound.
11	Clark	June 29, 1864	Mason	M. 36	" " " "	4 h.	"	Death	6 d.	" " fract. of r. ulna; contusion of scalp.
12	Hodges	Sept. 3, 1864	Soldier	M. 23	Comp. fracture of arm	2 h.	"	Recovery	53 d.	Premature explosion; sloughing of flaps.
13	"	Oct. 10, 1865	Papermaker	M. 49	" " "	24 h.	"	Death	12 d.	Scalpwound; collapse; autop. showed int. injuries.
14	Cabot	Dec. 2, 1870	Engineer	M. 50	Comp. com. fracture of arm	2 h.	"	"	6 d.	Laceration of abdomen and leg, fracture of ribs, &c.
15	Bigelow	Feb. 16, 1871	Photographer	M. 32	" " "	3 h.	"	"	1 d.	Scalpwound; intoxication; d. from collapse.

Recovered, 7
Died, 8—Total, 15.
Ratio of mortality, 53·33 per cent.

Deaths from Exhaustion, 5
" Collapse, 2
" Shock, 1

R. R. accidents 6, of which 3 were fatal.

AMPUTATIONS AT SHOULDER JOINT.—TRAUMATIC—SECONDARY. No Cases.

Table 2.

AMPUTATIONS AT SHOULDER JOINT.—PATHOLOGICAL.

No.	Operator.	Date.	Occupation.	Sex and Age.	Disease.	Duration.	Method of Amputation.	Result.	Length of Time.	Details.
1	Townsend	March 5, 1853	Mechanic	M. 41	Chronic disease of joint	3 y.	Flap	Recovery	84 d.	
2	Bigelow	Jan. 9, 1858	Laborer	M. 47	Tumor of arm	24 y.	"	"	103 d.	Encephaloid.
3	Gay	Aug. 28, 1858	"	M. 26	Necrosis of humerus	5 w.	"	"	60 d.	Great burrowing of pus in arm.
4	Cabot	Dec. 18, 1858	"	M. 50	Tumor of shoulder	1 y.	"	Death	8 d.	Glenoid cav.; acromion & coracoid processes rem'd; encephaloid.
5	"	Dec. 30, 1859	Housewife	F. 38	" " arm	14 mo.	"	Recovery	53 d.	Encephaloid; not quite cicatrized.
6	J. M. Warren	April 3, 1860	Child	M. 7	Ulcers of shoulder and arm	2½ mo.	"	Death	113 d.	Cicatrices of burn; vomiting; head affection.
7	Gay	Aug. 2, 1860	Wool-carder	M. 13	Ulcers of arm	2 mo.	"	Recovery	18 d.	Integument removed by belt of machinery.
8	Bigelow	Jan. 14, 1864	Carpenter	M. 68	Tumor of arm	7 mo.	"	"	47 d.	Encephaloid; delirium.
9	"	Dec. 2, 1867	Shoemaker	M. 17	Necrosis of humerus	8 mo.	"	Death	12 d.	Much reduced before op.; pyæmia shown at autop.
10	Gay	Sept. 23, 1869	Slater	M. 40	Tumor of arm	25 y.	"	Recovery	26 d.	Myeloid; secondary hæmorrhage.
11	Bigelow	Jan. 11, 1871	Farmer	M. 32	" "	12 y.	"	"	25 d.	Sarcoma fasciculatum.

Recovered, 8
Died, 3—Total, 11.
Ratio of mortality, 27·27 per cent.

Deaths from Exhaustion, 1
" Pyæmia, 1
" Cerebral lesion, 1

Causes of amputation were Tumors in 6 cases.
" " " Ulcers " 2 "
" " " Necroses " 2 "
" " " Chr. dis. of joints " 1 "

Table 3.

AMPUTATIONS OF ARM.—TRAUMATIC—PRIMARY.

No.	Operator.	Date.	Occupation.	Sex and Age.	Nature of Injury.	Duration.	Amputation.		Result.	Length of Time.	Details.
							Method	Place.			
1	Townsend	July 24, 1847	Weaver	M. 45	Comp. com. fract. of arm	6 h.	Circular	$\frac{2}{3}$	Death	4 h.	R. R. accident; reduced by disease & loss of blood.
2	J. M. Warren	April 28, 1848	Laborer	M. 28	“ “ “ forearm	5 h.	Flap	$\frac{3}{3}$	Recovery	98 d.	Explosion; amputation of other forearm.
3	“	April 7, 1849	Mechanic	M. 22	“ “ “ arm	2 h.	“	$\frac{1}{3}$	“	51 d.	R. R. accident; erysipelas.
4	“	Mar. 29, 1851	Laborer	M. 27	“ “ “ elbow	4 h.	“	$\frac{3}{3}$	“	46 d.	
5	Clark	April 28, 1851	Seaman	M. 45	“ “ “ “	2 h.	“	$\frac{2}{3}$	“	29 d.	
6	“	Mar. 23, 1854	Mechanic	M. 36	“ “ “ forearm	3 h.	“	$\frac{3}{3}$	“	28 d.	Sloughing of flaps.
7	Townsend	July 17, 1856	Laborer	M. 24	“ “ “ elbow	2 h.	Circular	$\frac{1}{3}$	“	54 d.	Comminuted fracture of other arm.
8	Cabot	Aug. 18, 1856	Housewife	F. 65	“ “ “ forearm	3 h.	“	$\frac{1}{3}$	“	32 d.	Intoxication.
9	Townsend	Aug. 5, 1857	Mechanic	M. 21	“ “ “ “	5 h.	“	$\frac{2}{3}$	“	20 d.	
10	J. M. Warren	May 20, 1860	Minor	M. 12	“ “ “ elbow	2 h.	“	$\frac{2}{3}$	“	41 d.	R. R. accident; scalp wounds.
11	Clark	July 13, 1861	Carpenter	M. 60	“ “ “ arm	2 h.	Flap	$\frac{2}{3}$	“	47 d.	
12	Gay	Sept. 3, 1861	Minor	F. 11	“ “ “ forearm	3 h.	Circular	$\frac{2}{3}$	“	80 d.	“ amp. of fingers; resection of end of bone
13	J. M. Warren	April 8, 1862	Moulder	M. 21	“ “ “ elbow	2 h.	“	$\frac{2}{3}$—$\frac{3}{3}$	Death	19 d.	Sloughing of flaps; death from pyæmia.
14	Cabot	Jan. 2, 1863	Washerwoman	F. 44	Comp. dislocation at “	3 h.	“	$\frac{2}{3}$—$\frac{3}{3}$	Recovery	73 d.	“ “
15	Hodges	July 14, 1863	Minor	M. 13	Comp. com. fract. of arm	2 h.	Flap	$\frac{1}{3}$	“	41 d.	Bullet wound.
16	Clark	Aug. 8, 1863	Plumber	M. 28	“ “ “ elbow	3 h.	“	$\frac{1}{3}$	“	18 d.	Union by first intention.
17	Gay	Aug. 15, 1863	Minor	F. 3	“ “ “ arm	3 h.	Circular	$\frac{1}{3}$	“	28 d.	R. R. accident.
18	“	Sept. 2, 1863	Servant	M. 21	“ “ “ elbow	8 h.	“	$\frac{1}{3}$—$\frac{2}{3}$	“	31 d.	Gunshot wound.
19	Hodges	Nov. 26, 1863	Minor	M. 14	“ “ “ forearm	2 h.		$\frac{3}{3}$	“	22 d.	
20	Cabot	Nov. 28, 1863	Baker	M. 16	Laceration of arm	3 h.	Flap	$\frac{1}{3}$—$\frac{2}{3}$	“	19 d.	
21	Clark	Dec. 3, 1863	Farmer	M. 57	Comp. com. fract. of elbow	2 h.		$\frac{1}{3}$—$\frac{2}{3}$	“	60 d.	
22	Hodges	Sept. 12, 1864	Laborer	M. 56	“ “ “ arm	2 h.	Circular	$\frac{2}{3}$	Death	23 d.	
23	Cabot	Dec. 10, 1864	“	M. 21	“ “ “ elbow	2 h.	“	$\frac{2}{3}$	Recovery	69 d.	R. R. accident; acute pericarditis.
24	Bigelow	Dec. 8, 1864	Brakeman	M. 35	“ “ “ arm	9 h.	Flap	$\frac{2}{3}$	Death	2 d.	“ “ ampu. of leg; d. from collapse.
25	J. M. Warren	Mar. 20, 1867	Operative	M. 38	“ “ “ “	4 h.	Circular	$\frac{1}{3}$	Recovery	69 d.	
26	Gay	Oct. 29, 1867	Mechanic	M. 23	“ “ “ forearm	4 h.	Flap	$\frac{2}{3}$	Death	28 d.	Amp. of other forearm; death from pyæmia.
27	Cabot	Jan. 11, 1868	Minor	M. 11	“ “ “ arm	2 h.	“	$\frac{2}{3}$	Recovery	41 d.	Resection of end of bone six mos. later.
28	Hodges	Oct. 16, 1868	Laborer	M. 29	“ “ “ forearm	2 h.	“	$\frac{3}{3}$	“	15 d.	
29	Coolidge	April 9, 1869	Clerk	M. 62	“ “ “ arm	2 h.	“	$\frac{1}{3}$—$\frac{2}{3}$	“	91 d.	Comp. com. fract. of fibula; secondary hæmorr.
30	Hodges	July 22, 1869		M. 35	“ “ “ elbow	12 h.	“	$\frac{2}{3}$	Death	34 d.	Delirium tremens, d. from pyæmia.
31	Bigelow	Feb. 7, 1870	Carpenter	M. 55	“ “ “ arm	4 h.	“	$\frac{1}{3}$	“	21 d.	R. R. accident; disl. hip; hosp. gang; pleuritis.
32	Hodges	May 2, 1870	Fireman	M. 21	“ “ “ “	3 h.	“	$\frac{1}{3}$	Recovery	28 d.	Erysipelas.
33	“	May 11, 1870	Painter	M. 17	“ “ “ elbow	3 h.	Circular	$\frac{2}{3}$—$\frac{3}{3}$	“	20 d.	
34	Clark	May 31, 1870	Laborer	M. 24	“ “ “ arm	5 h.	Flap	$\frac{1}{3}$—$\frac{3}{3}$	“	28 d.	Erysipelas.
35	Cabot	Dec. 20, 1870	Minor	M. 15	Laceration of forearm		Circular	$\frac{2}{3}$—$\frac{3}{3}$	“	43 d.	
36	Clark	April 5, 1871	Laborer	M. 54	Comp. com. fract. of arm	5 h.	Flap	$\frac{1}{3}$	“		

Recovered, 29
Died, 7—Total, 36.
Ratio of mortality, 19·44 per cent.

Deaths from Exhaustion, 3
“ Pyæmia, 3
“ Collapse, 1

R. R. accidents 8, of which 5 were fatal.

Table 4. AMPUTATIONS OF ARM.—TRAUMATIC—SECONDARY.

No.	Operator.	Date.	Occupation.	Sex and Age.	Nature of Injury.	Duration.	Amputation. Method.	Amputation. Place.	Result.	Length of Time.	Details.
1	Bigelow	May 25, 1847	Laborer	M. 22	Laceration at elbow	14 d.	Circular	1/3	Recovery	86 d.	Gangrene up to elbow before operation.
2	"	Jan. 21, 1860	Pickle-packer	F. 16	Comp. dislocation of elbow	41 d.	"	2/3	"	25 d.	Fracture of internal condyle, not into joint.
3	Clark	April 24, 1861	Fisherman	M. 21	" com. fract. of forearm	1¼ d.	Flap	3/3	"	65 d.	" " other forearm; gunpowder explosion.
4	Hodges	Aug. 9, 1864	Soldier	M. 19	" " " elbow	2 mo.	Circular	1/3—2/3	"	14 d.	Bullet-wound.
5	Cabot	Oct. 19, 1864	Baker	M. 26	Laceration of arm	21 d.	"	1/3—2/3	"	21 d.	
6	Bigelow	Nov. 15, 1864	Brakeman	M. 23	Comp. com. fract. of forearm	2 d.	"	2/3—3/3	Death	23 d.	R. R. accident; d. from pyæmia proved at autop.
7	Cabot	Dec. 11, 1865	Laborer	M. 35	Fracture of forearm	24 d.	"	3/3	"	24 d.	Erysipelas; death from pyæmia.
8	Coolidge	Sept. 2, 1870		M. 52	Comp. fracture of hands	30 d.	"	2/3—3/3	"	30 d.	Amputation of fingers.

Recovered, 5
Died, 3—Total, 8. Ratio of mortality, 37.50 per cent.
Death from Pyæmia, 2
" Exhaustion, 1
R. R. accident 1, which was fatal.

Table 5. AMPUTATIONS OF ARM.—PATHOLOGICAL.

No.	Operator.	Date.	Occupation.	Sex and Age.	Disease.	Duration.	Amputation. Method.	Amputation. Place.	Result.	Length of Time.	Details.
1	J. C. Warren	Aug. 9, 1825	Farmer	M. 57	Tumor of forearm	7 y.	Flap	2/3	Recovery	42 d.	
2	"	April 11, 1827		M. 37	" elbow	7 mo.	"	3/3	"	68 d.	Family all phthisical.
3	Townsend	June 7, 1839	Spinster	F. 18	Chronic disease of elbow	3 y.	Circular	3/3	"	20 d.	
4	J. C. Warren	Dec. 24, 1840	Farmer	M. 32	" " "	5 y.	"	3/3	"	21 d.	
5	Bigelow	Sept. 29, 1847	"	M. 63	Tumor of elbow	16 y.	"	1/3	"	14 d.	Encephaloid.
6	Townsend	Sept. 15, 1847	"	M. 60	Chronic ulcers of elbow	2 y.	"	1/3—2/3	"	86 d.	Cicatrices of burn.
7	Clark	Jan. 25, 1851	Domestic	F. 18	" disease " "	1 y.	Flap	3/3	"	191 d.	
8	J. M. Warren	Jan. 31, 1851	Shoemaker	M. 28	" " " "	7 mo.	Circular	3/3	Death	54 d.	Chr. dis. of knee; axillary aneurism; secondary [hæmorrhage.
9	Bigelow	Feb. 11, 1853	Farmer	M. 34	" " " "	9 mo.	"	3/3	"	23 d.	Strumous diathesis; much reduced before op.
10	Cabot	Nov. 18, 1853	Grocer	M. 40	Necrosis of elbow	10 y.	"	2/3	Recovery	13 d.	Not fully healed, but doing well.
11	J M. Warren	Nov. 7, 1857	Domestic	F. 18	Tumor of forearm	16 y.	"	2/3	"	47 d.	Encephaloid; erysipelas.
12	Clark	July 10, 1858	Laborer	M. 50	Chronic ulcers of arm	4 mo.	Flap	1/3	"	24 d.	Cicatrices from erysipelas of 7 yrs. ago.
13	Bigelow	Nov. 20, 1858	Teamster	M. 27	" disease of elbow	7 y.	Circular	3/3	"	100 d.	Died 1 year later of phthisis.
14	"	Jan. 28, 1859	Spinster	F. 48	Neuralgia of arm	1½ y.	"	3/3	"	114 d.	Needle found in contact with nerve in fore finger.
15	J. M. Warren	Oct. 26, 1859	Shoemaker	M. 33	Caries of humerus	15 mo.	Flap	1/3	"	42 d.	Several secondary hæmorrhages.
16	Bigelow	July 13, 1860	Housewife	F. 57	Tumor of forearm	18 mo.	Circular	3/3	"	37 d.	Encephaloid; tumor first appeared 8 years ago.
17	Gay	May 4, 1861	Minor	F. 6	Burns of elbow	5 mo.	Flap	1/3	"	56 d.	
18	Bigelow	Feb. 10, 1862	"	F. 7	Tumor of stump	6 mo.	Circular	3/3	"	44 d.	Amp. of forearm 3 yrs. ago for tumor of hand.
19	Gay	Aug. 8, 1862	Farmer	M. 36	Chronic disease of wrist	3 y.		3/3	"	53 d.	
20	"	Sept. 12, 1862	Soldier	M. 51	Ulcer of stump	2½ mo.	Flap		"	57 d.	Primary amp. for bullet wound.
21	Bigelow	Mar. 21, 1863	Clerk	M. 29	Tumor of wrist	6 mo.	Circular	3/3	"	24 d.	Medullary cancer.
22	Cabot	Nov. 7, 1863	Minor	F. 11	Neuralgia of stump	2 mo.	Flap	3/3	"	18 d.	Neuralgia unrelieved 8 yrs. later.
23	"	May 4, 1864	Laborer	M. 21	Neuroma of "	8 y.	Circular	3/3	"	37 d.	Amp. of forearm 8 yrs. ago.
24	Bigelow	Dec. 19, 1864	Domestic	F. 28	Anchylosis of elbow	3 y.	Flap	1/3	"	45 d.	
25	Hodges	May 18, 1464	Minor	M. 18	Conical stump	9 y.	Circular	1/3	"	19 d.	Nearly healed.
26	Cabot	Jan. 6, 1865	Spinster	F. 40	Tumor of forearm	2 y.	"	2/3	"	94 d.	Erysipelas.
27	"	Feb. 17, 1865	Laborer	M. 32	Anchylosis of elbow	15 mo.	"	2/3—3/3	Death	10 d.	Death from pyæmia.
28	Bigelow	April 26, 1865	Housewife	M. 21	Ununited fracture of arm	2½ y.	"	2/3	Recovery	21 d.	
29	"	Nov. 10, 1867	Leather-splitter	M. 33	Neuralgia of stump	6 mo.	Flap	1/3	"	150 d.	
30	Clark	June 3, 1870	Carpenter	M. 36	Tumor of elbow	17 mo.	Circular	3/3	"	61 d.	Medullary sarcoma.
31	Bigelow	Jan. 26, 1871	Farmer	M. 32	Tumor of forearm	9 mo.	"	3/3	"	25 d.	Myeloid from radius.
32	Cabot	Mar. 14, 1871	Domestic	F. 80	Neuralgia of arm	3 y.	Flap	1/3	Death	2 d.	

Recovered, 28
Died, 4—Total, 32.
Ratio of mortality, 12·50.

Deaths from Exhaustion, 3
" Pyæmia, 1

Causes of Amputation were:
- Tumors in 10 cases.
- Chr. dis. of joint 7 "
- Neuralgia 4 "
- Ulcers 3 cases.
- Anchylosis 2 "
- Necrosis 1 "
- Caries 1 case.
- Burn 1 "
- Unu. fract. 1 "
- Conical stump 1
- Neuromata 1

Table 6. AMPUTATIONS OF FOREARM.—TRAUMATIC—PRIMARY.

No.	Operator.	Date.	Occupation.	Sex and Age.	Nature of Injury.	Duration.	Amputation.		Result	Length of Time.	Details.
							Method.	Place.			
1	Hayward	April 12, 1838	Blacksmith	M. 23	Comp. com. fract. of hand	3 h.	Circular	3/3	Recovery	49 d.	Caught in gear-wheel of steam engine.
2	Townsend	Mar. 22, 1839	Joiner	M. 17	“ “ “ “	3 h.	“	3/3	“	31 d.	Planing machine.
3	J. C. Warren	May 12, 1849	Laborer	M. 37	“ “ both “	7 h.	Flap	3/3	“	71 d.	R. R. accident; carpo-metacarpal amp. of r. hand.
4	Townsend	May 17, 1850	Minor	M. 15	“ “ of wrist	2 h.	Circular	3/3	“	77 d.	Fracture and depression of skull, &c.
5	J. M. Warren	Nov. 6, 1852	Laborer	M. 24	Laceration of forearm	5 h.	Flap	3/3	Death	3½ h.	D. from chloroform adm. for ether by mistake.
6	Clark	May 5, 1854	Minor	M. 6	Comp. com. fract. of hand	2 h.	“	3/3	Recovery	21 d.	Hand mangled by circular saw.
7	“	May 9, 1855	Laborer	M. 26	“ “ “ “	2 h.	“	⅔	“	52 d.	Premature explosion while blasting.
8	“	May 24, 1855	Mechanic	M. 36	“ “ “ forearm			⅓	“	37 d.	Caught between band and roller of machine.
9	Townsend	Oct. 8, 1855	Mechanic	M. 30	“ “ “ “	1½ h.	Circular	3/3	“	52 d.	Caught in gearing of machine; secondary hæmor.
10	Bigelow	Nov. 8, 1855	Farmer	M. 19	“ “ “ hand	7 h.	“	3/3	“	32 d.	Explosion of gun.
11	Gay	Aug. 29, 1856	Mechanic	M. 21	“ “ “ “	3 h.	Flap	3/3	“	73 d.	Caught between rollers of machine.
12	Cabot	Feb. 21, 1857	Farmer	M. 21	“ “ “ “	5 h.	Circular	3/3	“	43 d.	Premature explosion while blasting.
13	Townsend	July 4, 1857	Laborer	M. 23	“ “ “ forearm	7 h.	“	3/3	Death	3 d.	Explo. of gun; punct. of abd.; d. fr. peritonitis.
14	Gay	July 4, 1859	“	M. 45	“ “ “ hand	2½ h.	“	3/3	Recovery	44 d.	Gunpowder explosion; delirium tremens.
15	Bigelow	Nov. 9, 1861	“	M. 36	“ “ both “	2 h.	“	⅔	Death	6 d.	R. R. accident; alcoholic habit.
16	Clark	July 1, 1863	“	M. 32	“ “ of “	12 h.	Flap	3/3	“	22 d.	“ “ intoxicated on entrance.
17	Hodges	July 29, 1864	“	M. 50	“ “ “ forearm		“	⅓—⅔	Recovery	45 d.	“ “ “ “ “
18	“	Aug. 6, 1864	Machinist	M. 27	“ “ “ wrist	2 h.	Circular	⅔	“	35 d.	Erysipelas.
19	Bigelow	Jan. 21, 1865	Laborer	M. 25	“ “ “ forearm	4 h.	“	⅓	Death	16 d.	R. R. accident; secondary hæmorrhage.
20	Gay	Aug. 24, 1867	Leather-splitter	M. 33	“ “ “ “	2 h.	“	⅓	Recovery	68 d.	Caught between cylinders.
21	Cabot	Jan. 20, 1868	Brakeman	M. 24	“ “ “ “	9 h.	Flap	⅔	“	72 d.	R. R. accident; erysipelas; abscesses in leg.
22	Coolidge	April 28, 1868	Music teacher	F. 17	“ “ “ hand	3 h.	Circular	⅔—3/3	“	54 d.	“ “
23	Clark	June 25, 1868	Laborer	M. 43	“ “ “ wrist		“	3/3	“	35 d.	Premature explosion while blasting.
24	“	April 2, 1869	Shoemaker	M. 8	“ “ “ hand	4 h.	Flap	wr. jt.	“	40 d.	Hands crushed by heel stamper.
25	Coolidge	June 10, 1869	Minor	M. 5	“ “ “ forearm	2 h.	Circular	⅓	Death	19 d.	Double amputation; convulsions.
26	Clark	April 12, 1870	Mechanic	M. 33	“ “ “ wrist	3 h.	Flap	⅓	Recovery	18 d.	Hand caught in moulding machine.
27	Coolidge	Oct. 10, 1870	Minor	M. 16	“ “ “ “	4 h.	“	3/3	“	15 d.	Gunshot wound.
28	Hodges	Jan. 7, 1871	Stone mason	M. 21	“ “ “ forearm	2 h.	“	⅓	“	65 d.	R. R. accident; amp. of five toes and one finger.
29	Cabot	Jan. 26, 1871	Wool-carder	M. 45	“ “ “ “	4 h.	Circular	⅓—⅔	Death	6 d.	Delirium tremens; erysipelas.

Recovered, 22; Died, 7—Total, 29. Ratio of mortality, 24·13 per cent. Deaths from Exhaustion, 5; Peritonitis, 1; Chloroform, 1. R. R. accidents 8, of which 3 were fatal.

Table 7. AMPUTATIONS OF FOREARM.—TRAUMATIC—SECONDARY.

No.	Operator.	Date.	Occupation.	Sex and Age.	Nature of Injury.	Duration.	Amputation.		Result.	Length of Time.	Details.
							Method.	Place.			
1	Hayward	June 27, 1834	Innkeeper	M. 25	Laceration of hands	7 d.	Circular	⅔	Death	2 d.	Gunpowder explosion; face burned; del. tremens.
2	J. C. Warren	April 3, 1836	Laborer	M. 29	Comp. com. fract. of hand	5 d.	“	3/3	Recovery	35 d.	Explosion of shot gun.
3	Bigelow	Feb. 22, 1854	Mechanic	M. 51	“ dislocation of wrist	11 d.		⅔	“	28 d.	Drawbridge fell upon hand.
4	“	Dec. 30, 1854	Seaman	M. 24	Hand burnt and crushed	36 d.	“	⅔	“	52 d.	
5	“	Jan. 20, 1855	Domestic	F. 50	Comp. fract. of radius	14 d.	“	⅓	“	28 d.	Fell twelve feet down embankment.
6	Clark	May 17, 1861	Stone-cutter	M. 22	“ com. fract. of wrist	40 d.	Flap	⅔	“	14 d.	Bullet wound; delirium tremens; erysipelas.
7	Gay	June 18, 1862	Baker	M. 21	Contusion of forearm	4 mo.	Circular	⅓	“	116 d.	Several secondary hæmorrhages.
8	Bigelow	Nov. 26, 1863	Lieutenant	M. 24	Comp. com. fract. of forearm	28 d.		3/3	Death	31 d.	Bullet wound; d. from pyæmia (?)
9	Cabot	April 26, 1864	Shoemaker	M. 24	“ “ “ hand	20 d.	Flap	3/3	Recovery	60 d.	Explosion of shot gun.
10	Hodges	April 18, 1865	Cracker-maker	M. 14	“ “ “ “	3 d.		⅔	“	40 d.	Hand crushed in kneading machine.
11	Bigelow	Dec. 28, 1869	Laborer	M. 50	Contusion of hand	3 mo.	Circular	⅔	“	27 d.	“ “ between carts.
12	Hodges	April 16, 1870	Carpenter	M. 63	Comp. com. fract. of forearm	42 d.	Flap	⅔	“	22 d.	Comp. fract. of same arm in elbow-joint.

Recovered, 10; Died, 2—Total, 12. Ratio of mortality, 16·66 per cent. Deaths from Exhaustion, 1; Pyæmia, 1.

Table 8. AMPUTATIONS OF FOREARM.—PATHOLOGICAL.

No.	Operator.	Date.	Occupation.	Sex and Age.	Disease.	Duration.	Amputation. Method.	Amputation. Place.	Result.	Length of Time.	Details.
1	J. C. Warren	Nov. 8, 1834	Minor	F. 14	Necrosis of carpus	18 mo.	Circular	3/3	Recovery	18 d.	Kicked by a cow.
2	Townsend	Aug 6, 1839	Ship-joiner	M. 72	Ulcer of hand	1 y.	"	2/3	"	20 d.	After treatment of small tumor by empiric.
3	"	Mar. 14, 1842	Farmer	M. 56	Tumor of hand	30 y.	"	3/3	"	14 d.	Osteo-sarcoma; not fully healed.
4	"	May 4, 1843	Shoemaker	M. 14	Necrosis of carpus	10 mo.	"	3/3	"	25 d.	
5	Hayward	Dec. 15, 1848	Housewife	F. 26	Tumor of hand	12 y.	"	3/3	"	24 d.	"Malignant" erysipelas.
6	Bigelow	Jan. 30, 1855	Farmer	M. 47	Necrosis of carpus	3 y.	"	3/3	"	20 d.	Wrist jammed.
7	Clark	April 2, 1856	Mechanic	M. 25	" "	2 y.	"	2/3—3/3	"	25 d.	"Scrofulous."
8	Townsend	Aug. 21, 1858	Dress-maker	F. 31	Tumor of wrist	5 mo.	"	3/3	"	23 d.	"Cancer."
9	Cabot	July 31, 1858	Book-agent	F. 36	Caries of carpus	2 y.	Flap	wr. jt.	"	33 d.	
10	Clark	Mar. 29, 1859	Laborer	M. 30	Necrosis of "	6 mo.	"	3/3	"	52 d.	Window fell upon wrist.
11	Bigelow	Dec. 1, 1859	Minor	M. 5	Tumor of hand	4 y.	Circular	3/3	"	51 d.	After vacciuation; reamp. 2 y. for recurrence.
12	"	Jan. 19, 1861	Laborer	M. 36	Chronic dis. of wrist-joint	1 y.	"	2/3	"	59 d.	Originating in sprain.
13	Cabot	Sept. 24, 1861	Machinist	M. 63	Necrosis of carpus	3 y.	"	2/3	"	13 d.	Erysipelas.
14	Bigelow	April 11, 1862	Spinster	F. 24	Tumor of forearm	4½ y.	"	2/3	"	30 d.	Enchondroma.
15	Townsend	Aug. 8, 1862	Shoemaker	M. 72	" " hand	3 y.	"	3/3	"	76 d.	Epithelial; sloughing of flaps.
16	Cabot	Oct. 3, 1862	Laborer	M. 40	Ulcers of forearm	4 mo.	"	1/3	"	58 d.	Following burns; erysipelas.
17	Bigelow	Dec. 20, 1862	Weaver	M. 50	Tumor of wrist	40 y.	"	1/3	"	23 d.	"Cancer."
18	J. M. Warren	Feb. 11, 1863	Laborer	M. 23	Abscess of hand	2 mo.	"	3/3	Death	91 d.	Extensive sloughing of flaps.
19	Bigelow	Feb. 12, 1863	Carpenter	M. 52	Necrosis of carpus	9 mo.	"	3/3	"	88 d.	Albuminuria; secondary hæmorrhages; erysip.
20	Cabot	Feb. 28, 1863	Fruit-dealer	M. 30	" " "	6 mo.	"	3/3	Recovery	37 d.	Slight sloughing of flaps.
21	J. M. Warren	Mar. 23, 1863	Carpenter	M. 62	" " "	4 mo.	Flap	3/3	Death	34 d.	Following penknife wound of wrist.
22	"	May 2, 1865	Laborer	M. 62	" " "	2 y.	Circular	1/3—2/3	Recovery	21 d.	
23	Clark	May 13, 1865	"	M. 48	" " metacarpus	1 y.	"	3/3	"	42 d.	Pickaxe wound of hand.
24	Cabot	Dec. 18, 1865	Cook	M. 53	Abscess of hand	7 wk.	Flap	3/3	Death	29 d.	Death from pyæmia, as shown at autopsy.
25	Hodges	Sept. 21, 1867	Fisherman	M. 58	" " "	6 wk.	Circular	1/3	Recovery	34 d.	
26	"	April 12, 1871	Clerk	M. 32	Tumor of stump	1½ y.	Flap	3/3	"		Primary amp. of hand for horns of 27 y. duration.
27	Clark	April 15, 1871	Sempstress	F. 47	Caries of carpus	9 mo.	"	3/3	"		Bullet wound of wrist.

Recovered, 23
Died, 4—Total, 27
Ratio of mortality, 14·81 per cent.

Deaths from Exhaustion, 3
" Pyæmia, 1

Causes of Amputation were		
Necrosis	in 11	cases.
Tumors	8	"
Abscesses	3	"
Ulcers	2	"
Caries	2	"
Chr. dis. of joint	1	"

Table 9. AMPUTATIONS AT HIP-JOINT.—TRAUMATIC—PRIMARY AND PATHOLOGICAL.

No.	Operator.	Date.	Occupation.	Sex and Age.	Injury or Disease.	Duration.	Amputation. Method.	Result.	Length of Time.	Details.
1	J. M. Warren	June 19, 1858	Minor	M. ch.	Comp. fract. of thigh	1 h.		Death	13 d.	Extensive laceration of hip; d. from exhaustion.
2	"	Mar. 23, 1859	Shoemaker	M. 17	Tumor of thigh	7 mo.	Flap	Recovery	42 d.	Osteo-sarcoma.
3	Hodges	May 29, 1868	Clerk	M. 31	" " stump	5 mo.	"	"	60 d.	" " not fully healed; return of disease in stump and in left breast two yrs. later.

1 Traumatic—Primary amp. with fatal result.
2 Pathological (Tumors) " favorable result.

1 death from Exhaustion.

Table 10. AMPUTATIONS OF THIGH.—TRAUMATIC—PRIMARY.

No.	Operator.	Date.	Occupation.	Sex and Age.	Nature of Injury.	Duration.	Amputation. Method.	Amputation. Place.	Result.	Length of Time.	Details.
1	J. C. Warren	May 30, 1829	Painter	M. 23	Comp. com. fract. of leg	20 h.	Circular	3/3	Death	40 d.	Delirium; pus in wrist and hip joint.
2	Hayward	June 28, 1831	Minor	M. 10	“ “ “ thigh	12 h.	Flap	2/3	Recovery	125 d.	Sloughing of flaps; stump sound in 1852.
3	J. C. Warren	June 2, 1836	Laborer	M. 31	“ “ both “	2 h.	Fl.&Cir.	3/3	Death	9 h.	R. R. accident; double amp.; d. from collapse.
4	Hayward	Sept. 24, 1837	“	M. 39	Comp. fract. of leg	18 h.	Circular	2/3	“	6 h.	Died from collapse.
5	J. C. Warren	Nov. 5, 1838	Painter	M. 27	Comp. com. fract. of leg	6 h.	“	3/3	Recovery	135 d.	
6	“	Mar. 6, 1845	Laborer	M. 53	“ “ “ “	21 h.	Flap	3/3	“	116 d.	R. R. accident; great loss of blood before op.
7	J. M. Warren	April 6, 1847	“	M. 30	“ “ “ knee	17 h.	Circular	3/3	Death	2 d.	Laceration of scalp; del. trem.; d. fr. collapse.
8	“	Mar. 31, 1848	Brakeman	M. 20	“ “ “ leg	8½ h.	Flap	3/3	Recovery	38 d.	R. R. accident; toe on other foot crushed.
9	“	April 7, 1848	Artist	M. 33	“ “ “ “	1½ h.	“	1/3	Death	5 d.	“ extensive scalp-wound; d. fr. coll.
10	Parkman	Nov. 17, 1848	Teamster	M. 36	Lacer. thigh & rup. fem. art.	16 h.	Circular	1/3	Recovery	141 d.	Sloughing of flaps; resection of end of femur.
11	J. M. Warren	April 2, 1849	Mechanic	M. 40	Comp. com. fract. of leg	6 h.	“	3/3	Death	1 h.	Death from shock.
12	Parkman	June 19, 1849	Engineer	M. 39	“ “ “ thigh	4 h.	Flap	1/3	“	5 h.	R. R. accident; amp. of other leg; d. fr. collapse.
13	Bigelow	Dec. 15, 1849	Laborer	M. 21	“ “ “ “	2½ h.	Circular	3/3	Recovery	48 d.	“ “
14	Townsend	Aug. 8, 1851	Mechanic	M. 35	“ “ “ leg	3 h.	“	2/3	“	77 d.	Sloughing of flaps; contusion about knee.
15	Bigelow	Nov. 3, 1851	Seaman	M. 84	“ “ “ “		“	3/3	Death	1 d.	R. R. accident; amp. of other leg; d. fr. collapse.
16	J. M. Warren	April 10, 1852	Mechanic	M. 25	“ “ “ thigh	3 h.	“	1/3—2/3	Recovery	67 d.	Cystitis from enlarged prostate gland.
17	Parkman	July 1, 1852	Laborer	M. 30	“ “ “ leg	1 h.	“	3/3	“	29 d.	
18	J. M. Warren	Sept. 8, 1852	Seaman	M. 22	“ “ “ thigh	12 h.	“	2/3—3/3	“	59 d.	
19	“	Nov. 27, 1852	Laundress	F. 22	“ “ “ leg	3 h.	Flap	1/3	Relieved	46 d.	Sloughing of flaps; feeble when discharged.
20	Bigelow	Feb. 1, 1854	Laborer	M. 33	Comp. dislocation at knee	2½ h.		3/3	Recovery	71 d.	
21	Clark	May 29, 1854	“	M. 22	Comp. com. fract. of thigh	1 h.	Circular	3/3	Death	19 d.	Fracture of jaw and ulna; erysipelas.
22	“	June 19, 1854	Minor	M. 4	Laceration of thigh and leg	2 h.	Flap	1/3	Recovery	57 d.	
23	Townsend	July 3, 1855	Laborer	M. 30	Comp. com. fract. of leg	1½ h.	Circular	3/3	Death	26 d.	R. R. accident; delirium tremens.
24	Gay	Sept. 19, 1855	Mechanic	M. 45	“ “ “ thigh	7 h.	“	1/3	“	8 d.	Secondary hæmorrhage; gangrene.
25	“	Oct. 2, 1855	“	M. 20	“ “ “ leg	7 h.	Flap	3/3	Recovery	159 d.	
26	Townsend	Oct. 8, 1855	“	M. 25	“ “ “ “	5 h.	Circular	3/3	“	305 d.	R. R. accident; pneum.; resect. of end of femur.
27	Clark	June 21, 1856	Laborer	M. 38	“ “ “ “	2 h.	Flap	3/3	“	126 d.	“ “ [d. from shock.
28	Gay	Aug. 11, 1856	Minor	M. 4	“ “ “ “	2 h.	Circular	3/3	Death	½ h.	“ “ laceration of buttock and scalp;
29	Townsend	Sept. 11, 1856	Brakeman	M. 23	“ “ “ thigh	20 h.	“	2/3	Recovery	124 d.	“ “ epilepsy. (?)
30	Bigelow	Dec. 1, 1856	Widow	F. 42	“ “ “ “	3 h.	“	2/3	“	195 d.	“ “ obstinate vomiting.
31	Gay	Mar. 2, 1857	Carpenter	M. 28	“ “ “ leg	15 h.	“	3/3	“	140 d.	[after op.
32	Townsend	Aug. 30, 1858	Minor	M. 6	“ “ “ “	2 h.	“	2/3	“	61 d.	“ “ convulsions & stupor for 3 days
33	Gay	Sept. 9, 1858	Seaman	M. 36	“ “ “ thigh	12 h.	“	3/3	Death	1 d.	Delirium tremens; d. from collapse.
34	“	Sept. 21, 1858	Minor	F. 10	“ “ “ leg	2 h.	“	3/3	Recovery	39 d.	R. R. accident.
35	“	Dec. 9, 1858	“	M. 11	“ “ “ “	1 h.	“	3/3	“	134 d.	“ erysipelas.
36	Clark	May 5, 1859	Rigger	M. 32	“ “ “ thigh		“	2/3	Death	1 d.	Fracture of elbow; delirium; d. from collapse.
37	“	June 21, 1859	Teamster	M. 34	“ “ “ knee	24 h.	“	2/3	“	22 d.	Erysipelas; delirium.
38	Gay	Oct. 10, 1859	Brewer	M. 32	“ “ “ leg	2 h.	“	3/3	Recovery	186 d.	R. R. accident; resection of the end of femur.
39	Bigelow	Dec. 8, 1859	Brakeman	M. 30	“ “ “ “	3 h.	“	3/3	“	129 d.	“
40	Townsend	Sept. 5, 1860	Laborer	M. 51	“ “ “ “	2 h.	“	3/3	“	46 d.	“
41	Bigelow	Jan. 29, 1861	Inspector	M. 40	“ “ “ “	2½ h.	“	3/3	“	42 d.	“ erysipelas.
42	Clark	April 27, 1861	Minor	M. 2½	“ “ “ “	1½ h.	Flap	3/3	Death	1 d.	“ d. from collapse.
43	Gay	Oct. 21, 1861	Laborer	M. 24	“ “ “ thigh	2 h.	Circular	1/3	Recovery	190 d.	“ laceration of other leg.
44	J. M. Warren	June 6, 1862	“	M. 40	“ “ “ leg	2 h.	Flap	3/3	“	91 d.	“ secondary hæmorrhage; del. trem.
45	“	July 9, 1862	Minor	M. 10	“ “ “ “	2 h.	“	3/3	“	40 d.	“
46	“	June 20, 1863	Errand-boy	M. 16	“ “ both legs	2 h.	Circular	3/3	Death	10 h.	Double amputation; d. from collapse.
47	Hodges	July 11, 1863	Minor	M. 5	“ “ of leg	2 h.	“	2/3—3/3	“	11 d.	Lisfranc's amp. of other foot.
48	“	Sept. 21, 1863	Laborer	M. 32	“ “ “ knee	2½ h.	“	1/3—2/3	Recovery	94 d.	R. R. accident; comp. com. fract. of other ankle.
49	J. M. Warren	April 9, 1864	Driver	M. 38	“ “ “ leg	2½ h.	“	3/3	Death	3 d.	“ obstinate vomiting.

Table 10 (concluded.) AMPUTATIONS OF THIGH.—TRAUMATIC—PRIMARY.

No.	Operator.	Date.	Occupation.	Sex and Age.	Nature of Injury.	Duration.	Amputation.		Result.	Length of Time.	Details.
							Method.	Place.			
50	J. M. Warren	June 2, 1864	Seaman	M. 24	Comp. com. frac. of both legs	2 h.	Circular	1/3	Death	23 d.	Double amputation.
51	Hodges	April 18, 1865	Minor	F. 2	" " " leg	1½ h.	"	3/3	Recovery	28 d.	R. R. accident.
52	"	July 23, 1865	"	M. 13	" " " "	2 h.	"	3/3	Death	.16 d.	D. from tetanus.
53	Cabot	Dec. 6, 1865	Brakeman	M. 21	" " " "	20 h.	Flap	3/3	Recovery	25 d.	R. R. accident.
54	Hodges	Oct. 17, 1867		M. 38	" " " "	2 h.	"	3/3	"	72 d.	" amp. of other foot.
55	"	Oct. 6, 1869	Laborer	M. 50	Laceration of thigh	4 h.	Circu ar	1/3	Death	5 d.	Pulmonary complication; d. from pyæmia.
56	Gay	July 18, 1870	Minor	M. 9	Comp. com. fract. of leg	2 h.	"	3/3	Recovery	86 d.	Resection of end of femur.
57	Coolidge	July 23, 1870	Swiss	M. 40	Knee joint opened	1 h.	Flap	1/3—2/3	Death	2 h.	R. R. accident; exten. lac. of thigh; d. fr. shock.
58	Hodges	Aug. 17, 1870	Tailor	M. 30	Comp. com. fract. of leg	2 h.	Circular	2/3	"	39 d.	Fract. of other ankle; d. from pyæmia.
59	Bigelow	Nov. 22, 1870	Minor	M. 11	" " both knees	4 h.	"	1/3	"	15 h.	R. R. accident; double amp.; d. from shock.
65	Cabot	Jan. 20, 1871	"	M. 13	" " thigh	3 h.	ap	1/3—2/3	Recovery	57 d.	Not fully healed; resection of end of femur.

Recovered, 34
Died, 25
Relieved, 1—Total, 60
Ratio of mortality, 42·37 per cent.

Deaths from Collapse, 10
" Exhaustion, 8
" Shock, 4
" Pyæmia, 2
" Tetanus, 1

R. R. accidents, 27, of which 8 were fatal.

Table 11. AMPUTATIONS OF THIGH.—TRAUMATIC—SECONDARY.

No.	Operator.	Date.	Occupation.	Sex and Age.	Nature of Injury.	Duration.	Amputation.		Result.	Length of Time.	Details.
							Method.	Place.			
1	J. C. Warren	Nov. 19, 1824	Boatman	M. 30	Comp. fract. of leg	15 d.	Flap	2/3	Death	12 h.	D. from tetanus, developed before operation.
2	"	Nov. 18, 1828		M. 17	Lacer. of leg into knee-joint	25 h.	"	2/3	Recovery	37 d.	
3	Townsend	Aug. 7, 1845	Laborer	M. 21	Comp. com. fract. of leg	3 mo.	Circular	2/3	"	63 d.	Premature explosion while blasting.
4	J. M. Warren	Jan. 30, 1851	"	M. 21	" " "	47 d.	"	3/3	Death	23 d.	Delirium tremens; erysipelas.
5	Clark	Nov. 21, 1851	Minor	M. 12	Laceration of leg	121 d.	"	2/3	Recovery	52 d.	General anasarca.
6	Parkman	July 13, 1852	Mechanic	M. 24	Comp. fract. of leg	42 d.	"	3/3	Death	28 d.	Bed sores; erysipelas.
7	Gay	Oct. 15, 1857	"	M. 51	Comp. com. fract. of leg	39 h.	"	3/3	"	23 d.	R. R. accident; thoracic complications.
8	J. M. Warren	April 11, 1857	Stevedore	M. 51	" " "	2 mo.	"	3/3	Recovery	42 d.	Delirium tremens.
9	Bigelow	Jan. 3, 1859	Laborer	M. 48	" " "	53 d.	"	3/3	"	119 d.	Dislocation of shoulder also.
10	"	Nov. 20, 1861	"	M. 45	Comp. frac. ank. & lac. thigh	10 d.	"	2/3	Death	6 d.	Delirium tremens; fract. of 4 ribs.
11	Hodges	July 16, 1863	Lieutenant	M. 28	Comp. fract. of knee	16 d.	"	2/3—3/3	"	6 d.	Bullet wound; d. from pyæmia. (?)
12	"	Oct. 15, 1864	Laborer	M. 29	Commin. fract. of leg	4 d.	"	2/3—3/3	Recovery	155 d.	R. R. accident; phlebitis; diffuse cellular inflam.
13	J. M. Warren	Mar. 30, 1865	Teamster	M. 56	Fracture of leg	27 d.	"	3/3	Death	3 d.	Epilepsy; at aut. enceph. tumors found in brain &
14	"	May 19, 1865	Laborer	M. 57	Comp. com. fract. of leg	2½ d.	"	3/3	"	7 d.	R. R. accident; secondary hæmorr. [both lungs.
15	Hodges	Sept. 15, 1866	Trader	M. 28	Bullet in knee	18 d.	Flap	3/3	"	4 d.	Bullet wound of buttock; fract. of pelvis.

Recovered, 6
Died, 9—Total, 15
Ratio of mortality, 60 per cent.

Deaths from Exhaustion, 6
" Tetanus, 1
" Enceph. growth in brain, 1
" Pyæmia, 1

R. R. accidents, 3, of which 2 were fatal.

Table 12.

AMPUTATIONS OF THIGH.—PATHOLOGICAL.

No.	Operator.	Date.	Occupation.	Sex and Age.	Disease.	Duration.	Amputation.		Result.	Length of Time.	Details.
							Method.	Place.			
1	J. C. Warren	Nov. 13, 1823		F. 42	Chronic disease of knee joint	5 mo.	Circular	[illegible]	Recovery	223 d.	Secondary hæmorrhage.
2	“	Mar. 25, 1824		M. 16	Deformity of knee	7 y.	Flap	[illegible]	“	35 d.	Venesectio ad xii. oz.
3	“	May 29, 1824		M. 18	Chronic disease of knee-joint	18 mo.	“	[illegible]	Death	3 d.	Obstinate vomiting.
4	“	Dec. 9, 1826		M. 21	“ “ “ “	3 y.	“	[illegible]	Recovery	65 d.	Secondary hæmorrhage.
5	“	May 9, 1827		M. 21	Ulcers on legs	4 mo.	Circular	[illegible]	“	73 d.	
6	“	Dec. 8, 1827		M. 21	Chronic disease of knee-joint	3 mo.	Flap	[illegible]	Relieved	5 d.	
7	“	May 9, 1828	Shoemaker	M. 23	“ “ “ “	10 y.	Circular	[illegible]	Death	40 d.	Great hæmorrhage during op. D. fr. exhaustion.
8	“	Dec. 6, 1828		M. 24	Deformity of knee	16 y.	Flap	[illegible]	Recovery	39 d.	Deformity caused by dislocation of patella.
9	“	Dec. 5, 1829	Servant	M. 12	Chronic disease of knee-joint	8 mo.	Circular	[illegible]	“	103 d.	
10	“	Nov. 27, 1830	Shoemaker	M. 23	“ “ “ “	3 y.	Flap	[illegible]	Death	180 d.	Night sweats. D. fr. exhaustion.
11	“	Jan. 2, 1832		M. 13	“ “ “ “	7 y.	Circular	[illegible]	Recovery	49 d.	
12	Hayward	April 12, 1832	Cooper	M. 26	“ “ “ “	6 y.	“	[illegible]	“	92 d.	Secondary hæmorrhage.
13	J. C. Warren	Nov. 24, 1832		F. 27	“ “ “ “	23 y.	Flap	[illegible]	“	51 d.	Venesectio ad xiv. oz.
14	“	Aug. 28, 1832		M. 21	“ “ “ “	3 mo.	Circular	[illegible]	“	65 d.	Secondary hæmorrhage.
15	“	Sept. 26, 1832	Grocer	M. 37	Necrosis of tibia	20 y.	Flap	[illegible]	“	63 d.	
16	“	Jan. 11, 1833	Domestic	F. 21	Chronic disease of knee-joint	5 y.	Circular	[illegible]	“	70 d.	
17	Hayward	May 8, 1833	Mechanic	M. 26	“ “ “ “	4 y.	“	[illegible]	“	56 d.	
18	J. C. Warren	Dec. 28, 1833	Spinster	F. 23	“ “ “ “	4½ y.	“	[illegible]	“	53 d.	[oped before op.
19	“	Jan. 11, 1834	Farmer	M. 35	Tumor of leg	2½ y.	“	[illegible]	Death	7 d.	Tumor removed previously. D. fr. pyæmia devel-
20	“	Dec. 4, 1835	Minor	F. 13	Chronic disease of knee-joint	1 y.	“	[illegible]	Recovery	162 d.	Resection of end of femur.
21	J. C. Warren	Dec. 16, 1836	Tailoress	F. 24	Necrosis of femur	13 y.	Flap	[illegible]	Recovery	27 d.	
22	Hayward	June 10, 1837	Carpenter	M. 27	Chronic disease of knee-joint	4 y.	Circular	[illegible]	“	39 d.	
23	“	Nov. 4, 1837	Med. student	M. 22	“ “ “ “	5 y.	“	[illegible]	“	44 d.	Rheumatism.
24	Townsend	May 25, 1839	Farmer	M. 37	Ulcer of leg	24 y.	“	[illegible]	“	58 d.	[morrhage, &c.
25	Hayward	1839	Laborer	M. 23	Necrosic of femur	5 y.		[illegible]	Death	2 h.	Alcoholic habit. D. fr. exhaustion caused by hæ-
26	“	Mar. 16, 1842	Machinist	M. 34	Ulcers of leg	4 y.	“	[illegible]	Recovery	47 d.	
27	“	Nov. 16, 1842	Tailor	M. 19	Chronic disease of knee-joint	13 y.	“	[illegible]	“	40 d.	Secondary hæmorrhage.
28	J. C. Warren	Oct. 14, 1843	Minor	F. 17	“ “ “ “	3½ mo.	Flap	[illegible]	Death	27 d.	D. fr. exhaustion. [art.
29	“	Nov. 7, 1844	Packer	M. 30	“ “ “ “	5 y.	“	[illegible]	Recovery	66 d.	Secondary hæmorrhages requiring ligation of fem.
30	Townsend	June 17, 1845	Laborer	M. 24	“ “ “ “	2 y.	“	[illegible]	“	70 d.	
31	J. C. Warren	Aug. 5, 1845	Sailor	M. 21	Gangrene of leg	3 w.	“	[illegible]	“	48 d.	Thigh caught in coil of rope.
32	“	Nov. 8, 1845	Minor	M. 19	Deformity and ulcer of leg	6 y.	“	[illegible]	“	24 d.	
33	“	Dec. 27, 1845	“	M. 12	Chronic disease of knee-joint	3 y.			Death	1 d.	Secondary hæmorrhage. [*surgical op.*
34	Hayward	May 23, 1846	Domestic	F. 21	“ “ “ “	1½ y.	Flap	[illegible]	Recovery	46 d.	*First patient to whom ether was administered for*
35	Townsend	May 31, 1847	Physician	M. 60	Necrosis of leg	50 y.	Circular	[illegible]	Death	29 d.	Phlebitis and embolism shown at autopsy.
36	J. M. Warren	July 12, 1847	Carver	M. 39	Deformity from injury	9 mo.	Flap	[illegible]	Removed	11 d.	
37	J. C. Warren	Aug. 27, 1847	Mechanic	M. 25	Tumor of leg	2 y.	“	[illegible]	Recovery	51 d.	
38	Hayward	Sept. 1, 1847	Laborer	M. 34	Chronic disease of knee-joint	2 y.	“	[illegible]	Death	6 d.	Much reduced before op. by suppuration. [rism.
39	Parkman	Nov. 27, 1847	Seaman	M. 23	Gangrene of leg	3 w.	“	[illegible]	Recovery	208 d.	Following ligature of fem. artery for traum. aneu-
40	J. C. Warren	Feb. 3, 1848	Laborer	M. 22	Chronic disease of knee-joint	4 mo.	Circular	[illegible]	“	35 d.	Inguinal glands inflamed.
41	Townsend	June 7, 1848	Shoemaker	M. 23	“ “ “ “	2 y.	Flap	[illegible]	Recovery	81 d.	
42	J. M. Warren	Mar. 31, 1849	Minor	M. 11	“ “ “ “	1¾ y.	“	[illegible]	“	39 d.	
43	“	May 9, 1849	Clerk	M. 44	Necrosis of femur	15 y.	“	[illegible]	“	87 d.	Erysipelas. Resection of end of femur.
44	Parkman	Sept. 4, 1849	Shoemaker	M. 22	Tumor of fibula	1 y.	Circular	[illegible]	“	60 d.	Nearly whole of fibula absorbed, encephaloid.
45	Townsend	Sept. 8, 1849	Merchant	M. 33	Chronic disease of knee-joint	3 y.	“	[illegible]	“	94 d.	Fractured patella.
46	J. M. Warren	Oct. 17, 1849	Trader	M. 48	Necrosis of femur	30 y.	“	[illegible]	“	281 d.	Great suppuration—resection of end of femur.
47	“	Oct. 28, 1849	Mechanic	M. 27	Tumor of patella	10 mo.	“	[illegible]	Death	60 d.	“Malignant.” Great hæmorrhage. D. fr. pyæmia.
48	“	Feb. 3, 1850	Farmer	M. 54	Chronic disease of knee-joint	5 y.	“	[illegible]	Recovery	80 d.	
49	“	Mar. 20, 1850	Spinster	F. 24	Deformity from cicatrix	1½ y.	Flap	[illegible]	Death	11 d.	Ulcers on thigh. D. fr. exhaustion.

Table 12 (continued.) AMPUTATIONS OF THIGH.—PATHOLOGICAL.

No.	Operator.	Date.	Occupation.	Sex and Age.	Disease.	Duration.	Amputation.		Result.	Length of Time.	Details.
							Method.	Place.			
50	Townsend	Mar. 22, 1850	Minor	M. 12	Caries of femur		Circular	[illegible]	Recovery	39 d.	
51	Hayward	Oct. 10, 1850	Domestic	F. 26	Chronic disease of knee-joint	18 mo.	Flap	[illegible]	"	99 d.	
52	J. M. Warren	Dec. 18, 1850	Mechanic	M. 52	Tumor of leg	23 y.	Circular	[illegible]	"	45 d.	Encephaloid.
53	Bigelow	Feb. 14, 1851	Laborer	M. 29	Ulcers of stump	9 w.	"	[illegible]	"	46 d.	Primary amputation for R. R. accident.
54	J. M. Warren	June 10, 1851	Mechanic	M. 43	Tumor of knee	2 y.	"	[illegible]	Death	27 d.	D. fr. pyæmia, as shown at autopsy.
55	Bigelow	Dec. 5, 1851	Laborer	M. 36	Chronic disease of knee-joint	25 y.	"	[illegible]	Recovery	56 d.	
56	J. M. Warren	June 26, 1852	Minor	M. 19	" " " "	7 y.	"	[illegible]	Recovery	38 d.	
57	Parkman	Sept. 8, 1852	Mechanic	M. 22	" " " "	16 mo.	"	[illegible]	Death	7 d.	At autopsy tubercles and abscesses found in lungs.
58	Townsend	Sept. 25, 1852	Currier	M. 59	Ulcers of leg	30 y.	"	[illegible]	Recovery	36 d.	Chronic Bright's disease. Great anasarca.
59	Parkman	Oct. 27, 1852	Housewife	F. 41	" " "	5 y.	"	[illegible]	"	38 h.	
60	J. M. Warren	April 19, 1852	Seaman	M. 21	Chronic disease of knee-joint	1½ y.	"	[illegible]	"	43 d.	
61	Clark	May 18, 1853	Sempstress	F. 24	" " " "	19 y.	Circular	[illegible]	"	64 d.	
62	Bigelow	Nov. 28, 1853	Domestic	F. 40	" " " "	30 y.	"	$\frac{2}{3}$—$\frac{3}{3}$	"	51 d.	Fatty degeneration of muscles.
63	Cabot	Feb. 18, 1854	Minor	F. 16	" " " "		"	[illegible]	"	391 d.	Resection of end of femur.
64	J. M. Warren	Mar. 1, 1851	Clergyman	M. 54	Tumor of knee	8 mo.	"	[illegible]	"	34 d.	Fibro-plastic. Singultus.
65	Parkman	July 29, 1854	Laborer	M. 17	Chronic disease of knee-joint	1 y.	"	[illegible]	"	253 d.	Resection of end of femur. Obstinate vomiting.
66	Bigelow	Jan. 5, 1856	Farmer	M. 50	Necrosis of femur	40 y.	"	$\frac{1}{3}$—$\frac{2}{3}$	Death	66 d,	
67	Townsend	Aug. 8, 1856	Mechanic	M. 21	" " "	8 mo.	"	[illegible]	Recovery	81 d.	
68	"	Oct. 22, 1856	Laborer	M. 30	Chronic disease of knee-joint	2 y.	"	[illegible]	"	84 d.	
69	J. M. Warren	Feb. 4, 1857	Housewife	F. 40	" " " "	3 y.	"	[illegible]	"	60 d.	Strumous diathesis.
70	Bigelow	Feb. 22, 1857	Domestic	F. 22	" " " "	8 mo.	"	[illegible]	"	144 d.	
71	"	Feb. 25, 1857	Laborer	M. 45	" " " "	5 mo.	"	[illegible]	Death	3 d.	Transfusion. Great hæmorrhage. D. fr. collapse.
72	"	April 4, 1857	Shoemaker	M. 26	Ulcers of leg	23 y.	"	[illegible]	Recovery	33 d.	Hæmorrhage.
73	J. M. Warren	May 9, 1857	Sempstress	F. 27	Chronic disease of knee-joint	15 y.	"	[illegible]	"	50 d.	Phthisical.
74	Townsend	Aug. 8, 1857	Minor	F. 11	Tumor of leg	7 mo.	"	[illegible]	"	34 d.	Osteo-sarcoma. D. fr. return of dis. 6 mos. later.
75	"	Sept. 15, 1857	"	F. 15	Chronic disease of knee-joint	2 y.	"	[illegible]	"	45 d.	
76	Bigelow	Oct. 29, 1857	Domestic	F. 30	" " " "	9 y.	"	[illegible]	"	100 d.	Sequestrum drawn fr. shaft of femur.
77	Townsend	Aug. 14, 1858	Minor	M. 15	Tumor of thigh	3 mo.	"	[illegible]	"	39 d.	Osteo-sarcoma.
78	Bigelow	Sept. 25, 1858	Stove-dealer	M. 21	Chronic disease of knee joint	3 y.	"	[illegible]	"	45 d.	
79	Townsend	Oct. 20, 1858	Laborer	M. 25	" " " "	7 y.	"	[illegible]	"	72 d.	Neuromata excised 7 years later.
80	Cabot	Nov. 5, 1858	Minor	M. 12	Necrosis of tibia	2½ y.	Flap	[illegible]	"	135 d.	Erysipelas.
81	"	Nov. 20, 1858	Currier	M. 30	Chronic disease of knee-joint	1 y.	Circular	[illegible]	"	63 d.	Bronchitis. Tuberculosis.
82	Bigelow	Feb. 25, 1859	Paper-carrier	M. 40	" " " "	2 y.	"	[illegible]	"	79 d.	
83	J. M. Warren	Mar. 30, 1859	Laborer	M. 23	Tumor of thigh	5 mo.	"	[illegible]	Death	17 d.	"Cancer." Secondary hæmorrhage. D. fr. ex- [haustion.
84	"	May 11, 1859	Painter	M. 33	" " fibula	18 mo.	"	[illegible]	Recovery	60 d,	Myeloid. Resection of end of femur 4 mos. later.
85	Clark	May 27, 1859	Shoecutter	M. 30	Necrosis of tibia	19 mo.	Flap	[illegible]	"	46 d.	
86	J. M. Warren	July 21, 1859	Minor	F. 8	" " "	2½ mo.	Circular	[illegible]	"	25 d.	
87	Clark	Aug. 12, 1859	Farmer	M. 18	Tumor of femur	9 mo.	"	[illegible]	"	52 d.	"Osteoid cancer." Hæmorrhage.
88	Gay	Aug. 24, 1859	Laborer	M. 21	Necrosis of tibia	3 mo.	"	[illegible]	Death	7 d.	At autopsy tubercles found in left lung.
89	"	Sept. 22, 1859	Student	M. 20	Chronic disease of knee-joint	15 y.	"	[illegible]	Recovery	170 d.	Extensive sloughing of flaps.
90	Townsend	Oct. 18, 1859	Marble-polish'r	M. 26	Necrosis of tibia	10 mo.	"	[illegible]	"	71 d.	
91	J. M. Warren	Nov. 2, 1859	Cabinet-maker	M. 21	Tumor of leg	5 mo.	"	[illegible]	"	39 d.	
92	Bigelow	Nov. 14, 1859	Tanner	M. 50	Chronic disease of knee-joint	15 mo.	"	[illegible]	"	81 d.	Strumous diathesis.
93	Cabot	Nov. 23, 1859	Housewife	F. 28	Tumor of leg	18 mo.	"	[illegible]	Relieved	45 d.	Growth reappearing in stump.
94	J. M. Warren	Nov. 30, 1859	Widow	F. 45	Chronic disease of knee-joint	2 y.	"	[illegible]	Death	27 d.	Autopsy showed chr. Bright's dis. and pyæmia.
95	Bigelow	Jan. 12, 1860	L't-house k'per	M. 26	Tumor of leg	1½ y.	"	[illegible]	"	23 d.	Jaundice. D. before reaching home.
96	"	Jan. 19, 1860	Housewife	F. 31	Chronic disease of knee-joint	14 y.	"	[illegible]	Recovery	55 d.	
97	J. M. Warren	Mar. 3, 1860	"	F. 23	Phlegmasia dolens	7 mo.	"	[illegible]	"	21 d.	Not fully healed. D. fr. phthisis 5 mos. later.
98	"	Mar. 22, 1860	"	F. 47	Necrosis of tibia	1 y.	"	[illegible]	"	30 d.	Resection of end of femur 1 mo. later.

Table 12 (continued.) AMPUTATIONS OF THIGH.—PATHOLOGICAL.

No.	Operator.	Date.	Occupation.	Sex and Age.	Disease.	Duration.	Amputation. Method.	Amputation. Place.	Result.	Length of Time.	Details.
99	Clark	May 2, 1860	Seaman	M. 31	Chronic disease of knee-joint	2 y.	Flap	[illegible]	Recovery	188 d.	Disease of spine also.
100	Gay	June 5, 1860	Machinist	M. 48	“ “ “ “	4 y.	Circular	[illegible]	Death	2 d.	Secondary hæmorrhage. Autopsy showed tubercles in both lungs.
101	“	July 9, 1860	Domestic	F. 19	Traumatic paralysis of leg	10 y.	“	[illegible]	Recovery	152 d.	Hospital gangrene.
102	Townsend	Oct. 13, 1860	Widow	F. 43	Chronic disease of knee-joint	1 y.	“	[illegible]	“	103 d.	Sloughing of flaps.
103	J. M. Warren	Mar. 19, 1861	Laborer	M. 53	“ “ “ “	3 y.	Circular	[illegible]	Death	9 d.	Great prostration before op. D. fr. exhaustion.
104	“	April 22, 1861	Domestic	F. 26	Excision of knee-joint	9 y.	Flap	[illegible]	Recovery	60 d.	
105	Bigelow	Nov. 7, 1861	“	F. 34	Painful stump of leg	10 mo.	Circular	[illegible]	“	82 d.	
106	J. M. Warren	Feb. 13, 1862	Cigar-maker	M. 26	Necrosis of femur	12 y.	“	[illegible]	“	70 d.	
107	Clark	April 16, 1862	Farmer	M. 19	“ “ “	6 y.	Flap	[illegible]	“	81 d.	Secondary hæmorrhages necess. ligature of fem. artery.
108	Townsend	July 14, 1862	Domestic	F. 21	Tumor of leg	15 mo.	Circular	[illegible]	“	48 d.	
109	Cabot	Nov. 26, 1862	Painter	M. 35	Necrosis of tibia	9 mo.	Flap	[illegible]	“	76 d.	Erysipelas.
110	Gay	Oct. 3, 1862	Laborer,	M. 25	“ “ femur	1 y.	Circular	[illegible]	“	28 d.	
111	J. M. Warren	April 22, 1863	Operative	F. 23	“ “ tibia	2 y.	“	[illegible]	“	86 d.	
112	Clark	May 22, 1863	Nail-maker	M. 43	Chronic disease of knee-joint	5 y.	“	$\frac{2}{3}$—$\frac{3}{3}$	“	26 d.	
113	J. M. Warren	May 26, 1863	Minor	M. 19	Ankylosis at knee-joint	4 y.	“	[illegible]	“	59 d.	Scarlatina.
114	Bigelow	July 24, 1863	Farmer	M. 22	Caries of tibia	9 mo.	“	[illegible]	“	30 d.	
115	“	Nov. 2, 1863	Spinster	F. 22	Chronic disease of knee-joint	12 y.	“	[illegible]	“	58 d.	
116	“	Nov. 24, 1863	Farmer	M. 38	Necrosis of tibia	23 y.	“	[illegible]	“	55 d.	
117	J. M. Warren	Feb. 17, 1864	Trader	M. 27	“ “ femur	13 y.	Flap	[illegible]	“	93 d.	Secondary hæmorrhages.
118	Bigelow	Feb. 26, 1864	Shoemaker	M. 26	“ “ “	18 mo.	Circular	[illegible]	“	64 d.	
119	Clark	April 7, 1864	Cigar-maker	M. 24	“ “ “	12 y.	Flap	$\frac{2}{3}$—$\frac{3}{3}$	“	31 d.	
120	“	April 16, 1864	Washerwoman	F. 34	Chronic disease of knee-joint	4 mo.	“	[illegible]	Death	38 d.	Tubercles and pyæmic deposits found at autopsy.
121	“	April 26, 1864	Farmer	M. 40	Necrosis of tibia	3 y.	“	[illegible]	Recovery	23 d.	
122	Hodges	July 26, 1864	“	M. 70	Tumor of leg	4 y.	Circular	[illegible]	Death	22 d.	Sec. hæmorrhage. Erysipelas. D. fr. exhaustion.
123	“	Aug. 5, 1864	Clerk	M. 34	Chronic disease of knee-joint	28 y.	“	[illegible]	“	82 d.	Sec. hæmor. necess. lig. of fem. artery. Hospital gangrene. D. fr. pyæmia as shown at autopsy.
124	Bigelow	Nov. 11, 1864	Laborer	M. 25	Necrosis of tibia	10 y.	Flap	[illegible]	Recovery	62 d.	Resection of end of femur 1 year later.
125	Gay	Nov. 30, 1864	Merchant	M. 54	Chronic disease of knee-joint	2 mo.	Circular	[illegible]	Death	6 d.	Tubercles found in l. lung at autopsy.
126	Bigelow	Dec. 1, 1864	Farmer	M. 37	Tumor of thigh	1 y.	Flap	[illegible]	Recovery	80 d.	Encephaloid. D. fr return of disease 5 mos. later.
127	“	Dec. 7, 1864	Clerk	M. 26	Chronic disease of knee-joint	5 y.	Circular	[illegible]	“	94 d.	
128	Gay	Jan. 5, 1865	Housewife	F. 61	Tumor of leg	15 mo.	“	[illegible]	Death	19 d.	Encephaloid. At autopsy enceph. growth found in lungs.
129	Bigelow	Jan. 19, 1865	Minor	M. 5	Chronic disease of knee-joint	3 y.	“	[illegible]	Recovery	173 d.	Resection of end of femur.
130	Clark	May 13, 1865	Seaman	M. 20	Tumor of thigh	6 y.	“	[illegible]	Death	22 d.	D. fr. pyæmia, as shown at autopsy.
131	Gay	Sept. 21, 1865	Painter	M. 36	Deformity of leg fr. fracture	2 y.	Flap	$\frac{2}{3}$—$\frac{3}{3}$	Recovery	24 d.	Secondary hæmorrhage.
132	“	Nov. 8, 1865	Farmer	M. 21	Ankylosis of knee	4 y.	“	[illegible]	“	91 d.	Resection of end of femur.
133	Hodges	Nov. 17, 1865	Musician	M. 40	Cancer of sciatic nerve	1 y.	“	[illegible]	“	42 d.	D. fr. cancerous growth in lungs 8 mos. later.
134	“	Jan. 17, 1866	Shoemaker	M. 27	Chronic disease of knee-joint	2½ y.	“	[illegible]	Death	47 d.	D. fr. pyæmia, as shown at autopsy.
135	J. M. Warren	Jan. 27, 1866	Carpenter	M. 55	Tumor of leg	5 y.	Circular	[illegible]	“	37 d.	Pneumonia. D. fr. pyæmia, as shown at autopsy.
136	“	May 5, 1866	Cobbler	M. 20	Chronic disease of knee-joint	3 y.	Flap	[illegible]	Recovery	45 d.	Erysipelas.
137	“	May 29, 1866	Apothecary	M. 20	Necrosis of femur	6 mo.	“	[illegible]	“	28 d.	Phthisis. Erysipelas.
138	“	June 9, 1866	Farmer	M. 21	Chronic disease of knee-joint	15 mo.	Teale's	[illegible]	“	37 d.	Secondary hæmorrhage.
139	“	June 27, 1866	Tanner	M. 55	“ “ “ “	3 y.	Circular	[illegible]	Death	56 d.	Resection of end of femur. D. fr. pyæmia proved at autopsy.
140	Hodges	June 22, 1866		M. 26	Fungus of stump	1 y.	Teale's	[illegible]	“	1 d.	D. from collapse.
141	“	Oct. 2, 1866	Bootmaker	M. 27	Necrosis of tibia	19 y.	Flap	[illegible]	Recovery	48 d.	
142	“	Dec. 3, 1866	Laborer	M. 27	“ “ stump	12 y.	“	[illegible]	“	41 d.	Prm. amp. 12 years ago at $\frac{3}{3}$ fr. chr. dis. knee-joint.
143	Bigelow	Jan. 3, 1867	Dyer	M. 32	Tumor of thigh	9 mo.	“	$\frac{1}{3}$—$\frac{2}{3}$	“	235 d.	Encephaloid. Symptoms of pyæmia, and later of tumor in brain, but improving when discharged.
144	“	Jan. 4, 1867	Minor	M. 19	Necrosis of femur	11 y.	Circular	[illegible]	“	22 d.	Union almost throughout by first intention.
145	J. M. Warren	Jan. 11, 1867	Paper-carrier	M. 52	Chronic disease of knee-joint	20 mo.	“	[illegible]	Death	32 d.	Recent tubercles found in both lungs at autopsy.

Table 12 (concluded.) AMPUTATIONS OF THIGH.—PATHOLOGICAL.

No.	Operator.	Date.	Occupation.	Sex and Age.	Nature of Injury.	Duration.	Amputation. Method.	Amputation. Place.	Result.	Length of Time.	Details.
146	Clark	Mar. 20, 1867	Housewife	F. 28	Chronic disease of knee-joint	8 y.	Flap	3/3	Recovery	20 d.	
147	Hodges	June 15, 1867	Soldier	M. 23	Necrosis of stump	1 y.	"	⅔	"	33 d.	Pr. amp. for comp. fract. of thigh 11 mos. ago.
148	Bigelow	Oct. 9, 1867	Engraver	M. 22	Chronic disease of knee-joint	18 y.	Circular	3/3	"	122 d.	Extensive sloughing of flaps.
149	"	Feb. 17, 1868	Merchant	M. 38	Tumor of leg	8 y.	Flap	3/3	"	69 d.	Erysipelas.
150	"	Feb. 22, 1868	Minor	M. 18	" " "	6 mo.	"	3/3	"	39 d.	"Cancer."
151	Hodges	Mar. 18, 1868	"	M. 13	" " "	7 mo.	"	3/3	"	33 d.	Sarcoma.
152	"	May 1, 1868	"	M. 18	" " thigh	2½ mo.	"	⅔	"	30 d.	
153	Gay	July 29, 1868	Mechanic	M. 36	Chronic disease of knee-joint	4 mo.	"	⅔	"	47 d.	
154	Hodges	Sept. 30, 1868	Harnessmaker	M. 28	" " " "	3 y.	"	3/3	"	28 d.	
155	Gay	Oct. 3, 1868	Bookseller	M. 37	" " " "	1 y.	Teale's	⅓—⅔	"	30 d.	
156	Bigelow	Oct. 9, 1868		M. 32	" " " "		Circular	3/3	Removed	102 d.	
157	Clark	April 3, 1869	Laborer	M. 44	Tumor of leg	5 mo.	Flap	⅔—3/3	Recovery	35 d.	
158	Clark	May 1, 1869	Spinster	F. 24	Chronic disease of knee-joint	9 mo.	Flap	3/3	"	49 d.	
159	Coolidge	May 17, 1869	Teamster	M. 32	Necrosis of tibia	3 mo.	Circular	3/3	"	23 d.	
160	Clark	June 18, 1869	Laborer	M. 24	Chronic disease of knee-joint	8 mo.	Flap	3/3	"	52 d.	Epilepsy.
161	Gay	Sept. 9, 1869	Laborer	M. 35	Necrosis of femur	11 mo.	"	⅔	"	41 d.	Secondary hæmorrhage.
162	"	Oct. 19, 1869	Minor	M. 19	Chronic disease of knee-joint	5 y.	"	⅔—3/3	"	27 d.	[Jaundice.
163	"	Oct. 29, 1869	Seaman	M. 43	Tumor of thigh	3 w.	"	¼	"	88 d.	Curvature of spine. Tumor in l. lumbar region.
164	Bigelow	Nov. 6, 1869	Laborer	M, 26	Chronic disease of knee-joint	6 y.	"	3/3	"	156 d.	Secondary hæmorrhages. [hæm. D. fr. exh.
165	Gay	July 14, 1870	Domestic	F. 20	Tumor of leg	7 mo.	"	⅔	Death	17 d.	Exci. of tumor attemp. 3 wk's before amp. Many
166	Cabot	Feb. 21, 1871	Minor	M. 15	Chronic disease of knee-joint	2 y.	"	3/3	"	18 d.	D. from pyæmia.

Recovered, 128
Died, 34
162
Relieved, 2
Removed, 2——Total, 166
Ratio of mortality, 20.98.

Deaths from Exhaustion, 21
" Pyæmia, 10
" Collapse, 2

The causes of amputation were:

Chronic disease of knee-joint in	82 cases.	Gangrene in	2 cases,
Necrosis,	29 "	Excision of knee-joint	1 "
Tumors	29 "	Phlegmasia dolens	1 "
Deformities	6 "	Traum. paralysis	1 "
Ulcers	6 "	Fungus of stump	1 "
Ankyloses	2 "	Necrosis of stump	1 "
Caries	2 "	Painful stump	1 "
		Ulcer	1 "

Table 13. AMPUTATIONS AT KNEE-JOINT.—PATHOLOGICAL.

No.	Operator.	Date.	Occupation.	Sex and Age.	Disease.	Duration.	Method of Amputation.	Result.	Length of Time.	Details.
1	Cabot	June 4, 1859	Shoecutter	M. 30	Necrosis r. tibia	19 y.	Post. flap	Well	46 d.	Patella and cartil. removed. Reëntered for diar-
2	Bigelow	F b. 8, 1868	Merchant	M. 52	Malignant tumor of leg	8 y.	" '	"	69 d.	rhœa, and died Oct. 2, 1859.
3	Cabot	Nov. 28, 1868	Minor	M. 12	Chronic disease of knee	11 mo.	Long ant. flap	"	31 d.	Patel. & cartil. removed. Sinuses in thigh form'd
4	Bigelow	Jan. 8, 1870	Operative	F. 41	Pulpy degen. of knee-joint	3 y.	Ant. & post. "	"	42 d.	Short ant. and long post. flaps. Patella removed.
5	"	Jan. 29, 1870	Operative	F. 23	" " " "	7 y.	" " " "	Dead	18 d.	Ant. fl. 3 in. below pa.& l. p. fl. Pyæ. gan.& erys.
6	Hodges	May 23, 1870	Minor	F. 10	Conical and ulcerated stump	8 y.	" " " "	Well	25 d.	Slight attack of erysipelas.
7	Clark	June 18, 1870	Wife	F. 62	Malignant disease of tibia	14 mo.	" " " "	Dead	10 d.	Flaps sloughed. [flap sloughed.
8	Bigelow	Nov. 12, 1870	Farmer	M. 27	Necros.tibia& ch. dis.of knee	13 y.	" " " "	Well	131 d.	Long ant.& short p. fl. Dis. cartil. removed. Ant.
9	Cabot	Nov. 19, 1870	Carpenter	M. 34	Ankylo. knee & sinuses in leg	1½ y.	Long. ant. flap	Dead	57 d.	Pyæmia.
10	Bigelow	Dec. 24, 1870	Milliner	F. 27	Caries of kneejoint	25 y.	Ant. & post. flap	Well	61 d.	Long ant. and long post. flaps.
11	Cabot	Jan. 27, 1871	Nurse	F. 65	Abscess of knee-joint	1 y.	" " " "	Dead	5 d.	Ant. flap sloughed.

Recovered, 7; Died, 4—Total 11.

Ratio of mortality, 36.36 per cent.

Deaths from Exhaustion, 3; from Pyæmia, 2.

Table 14. AMPUTATIONS AT KNEE-JOINT.—TRAUMATIC—PRIMARY.

No.	Operator.	Date.	Occupation.	Sex and Age.	Injury.	Duration.	Method of Amputation.	Result.	Length of Time.	Details.
1	Hodges	Oct. 17, 1867	Mechanic	M. 38	Comp. com. fract. leg	1 h.	Ant.&post. flap	Well	72 d.	Amp. of left foot also (procédé de M. Roux.)
2	"	June 3, 1868	Bookkeeper	M. 18	" " " "	1 h.	" " "	"	81 d.	Post. flap sloughed.
3	"	Aug. 6, 1869	Merchant	M. 82	" " " "	4½ h.	" " "	Dead	2 h.	Had bled excessively.
4	Clark	June 4, 1870	Coachman	M. 35	" " " "	2 h.	" " "	"	1 d.	C. com. fract. of pelvis also. Horse R. Road.
5	Hodges	June 25, 1870	Auditor	M. 49	" " " "	2 h.	" " "	"	23 d.	L. ant.& sh. post. fl.; acute cellulitis; p. fl. slgh'd.

Recovered, 2; Died, 3;—Total, 5. Ratio of mortality, 60.00 per cent. Deaths from Exhaustion, 3. R. R. accident, 1, which was fatal.

Table 15. AMPUTATIONS OF LEG.—TRAUMATIC—PRIMARY.

No.	Operator	Date.	Occupation.	Sex and Age.	Nature of Injury.	Duration.	Amputation. Method.	Amputation. Place.	Result.	Length of Time.	Details.
1	Hayward	April 25, 1832	Truckman	M. 27	Laceration of leg	18 h.	Circula	⅓	Recovery	82 d.	Alcoholic habit. Secondary hæmorrhages.
2	"	Mar. 5, 1838	Laborer	M. 30	Comp. com. fract. of leg	3 h.	"	⅓	Death	9 d.	Inj. to back. Jaund. Convul. Cause of d. unkn.
3	"	Jan. 16, 1839	Teamster	M. 26	" " " " "	22 h.	"	⅓	Recovery	119 d.	Delirium tremens.
4	Townsend	Aug. 14, 1841	Apple-woman	F. 50	" " " " "	3 h.	"	[illegible]	"	56 d.	Became insane and was sent to the asylum.
5	"	Nov. 16, 1846	Tanner	M. 35	" " " " "	1½ h.	Flap	[illegible]	"	138 d.	R. R. accident. Delirium tremens.
6	"	Feb. 20, 1847	Brakeman	M. 27	" " " " "	6 h.	Circular	[illegible]	"	161 d.	do. Secondary hæmorrhage. Pleuritis.
7	J. M. Warren	Mar. 24, 1847	Laborer	M. 39	" " " " "	3 h.	"	[illegible]	Death	6 d.	do. F. of skull. D. fr. comp. as sh. at autopsy.
8	Townsend	Sept. 2, 1847	"	M. 40	" " " " ankle	4 h.	"	[illegible]	"	18 h.	do. cont. of abdomen. D. fr. periton. and perf.
9	"	Sept. 27, 1847	"	M. 26	" " " " foot	3 h.	"	[illegible]	Recovery	95 d.	do. [of small intest. shown at aut.
10	J. M. Warren	Mar. 13, 1848	Minor	F. 6	" " " " ankle	1 h.	"	[illegible]	"	40 d.	do.
11	"	April 27, 1848	Domestic	F. 21	" " " " foot	2 h.	"	[illegible]	"	115 d.	do. Resection of end of bones. Erysipelas.
12	"	May 8, 1849	Seaman	M. 27	" " " " leg	15 h.	Flap	[illegible]	Death	11 d.	do. Del. trem. Forearm also injured.
13	"	Oct. 6, 1849	Laborer	M. 35	" " " " leg	5 h.	"	[illegible]	Recovery	235 d.	do. Erysipelas of scalp and stump.
14	Townsend	June 1, 1850	"	M. 25	" " " " legs	2 h.		[illegible]	Death	18 d.	do. Double amputation. Intoxication.
15	"	Sept. 14, 1850	"	M. 50	" " " " leg	3 h.	Circular	[illegible]	Recovery	74 d.	do. Sloughing of flaps.
16	J. M. Warren	April 1, 1851	"	M. 57	" " " " ankle	1½ h.	Liston's	[illegible]	"	75 d.	
17	Townsend	Aug. 1, 1851	Domestic	F. 18	" " " " "	17 h.		[illegible]	"	109 d.	
18	"	Aug. 22, 1851	Minor	M. 18	" " " " "		Circular	[illegible]	"	91 d.	Right thigh also amputated.
19	"	Oct. 17, 1851	Teamster	M. 30	" " " " leg	1 h.	"	[illegible]	"	95 d.	Delirium tremens.
20	Parkman	Oct. 18, 1852	Laborer	M. 33	" " " " ankle	8 h.	"	[illegible]	"	26 d.	R. R. accident. [from collapse.
21	Clark	Nov. 17, 1852	Carpenter	M. 35	" " " " "	3 h.	Flap	[illegible]	Death	1 d.	" " Fract. of skull and forearm. Died
22	Cabot	Jan. 21, 1854	Seaman	M. 19	" " " " "	2 h.		[illegible]	Recovery	42 d.	
23	J. M. Warren	Mar. 9, 1854	Stonecutter	M. 32	" " " " "	2 h.	Flap	[illegible]	"	67 d.	R. R. accident. Fracture of nose.
24	Clark	June 15, 1854	Laborer	M. 18	" " " " leg	2 h.	"	[illegible]	"	58 d.	" "
25	"	June 19, 1854	"	M. 24	" " " " "	2 h.	"	[illegible]	Death	3 d.	" " Comp. com. fract. of skull. D. fr. comp.
26	"	June 21, 1854	"	M. 21	" " " " "	3 h.	"	[illegible]	"	7 d.	" " Erysipelas.
27	Parkman	Aug. 7, 1854	Trader	M. 57	" " " " foot	1 h.	Circular	[illegible]	Recovery	31 d.	" " "
28	"	Sept. 12, 1854	Engineer	M. 22	" " " " ankle	3 h.	"	[illegible]	"	42 d.	" " "
29	Bigelow	Dec. 5, 1854	Laborer	M. 28	" " " " leg	2 h.	"	[illegible]	Death	36 d.	Comp. fract. of left leg. D. fr. pyæmia.
30	Cabot	Dec. 16, 1854	Seaman	M. 33	" " " " "		"	[illegible]	Recovery	125 d.	R. R. accident. Secondary hæmorrhage.
31	"	Feb. 14, 1855	Minor	M. 16	" " " " "	2 h.	"	[illegible]	"	66 d.	[thotonos and spasm.
32	Bigelow	Feb. 24, 1855	Book-pedlar	F. 26	" " " " "	3 h.	"	[illegible]	Death	11 d.	R. R. accident. Lisfranc's amp. of l. foot. Opis-
33	Cabot	May 28, 1855	Laborer	M. 19	" " " " "	3 h.	"	[illegible]	Recovery	49 d.	Delirium tremens. Not fully cicatrized.
34	"	Dec. 26, 1855	Domestic	F. 20	" " " " anklo	2 h.	"	[illegible]	"	61 d.	R. R. accident. Amp. of thumb. Sloughing of fl.
35	Clark	May 18, 1856	Mariner	M. 55	" " " " leg	20 h.	"	[illegible]	Death	7 d.	Obstinate vomiting.
36	Townsend	Aug. 12, 1856	Mechanic	M. 50	" " " " "	1½ h.	"	[illegible]	"	10 d.	Phlebitis.
37	J. M. Warren	April 18, 1857	Clerk	M. 19	" " " " "	12 h.	"	[illegible]	"	25 h.	Intoxication & great loss of blood. D. fr. collapse.

Table 15 (continued.) AMPUTATIONS OF LEG.—TRAUMATIC—PRIMARY.

No.	Operator.	Date.	Occupation.	Sex and Age.	Nature of Injury.	Duration.	Amputation.		Result.	Length of Time.	Details.
							Method.	Place.			
38	Clark	Nov. 4, 1857	Merchant	M. 50	Comp. com. fract. of ankle	15 h.	Flap	$\frac{2}{3}$—$\frac{3}{3}$	Recovery	132 d.	Del. tremens. Extensive sloughing. Erysipelas.
39	Cabot	June 10, 1858	Minor	F. 7	" " " " foot	2 h.		$\frac{3}{3}$	"	43 d.	R. R. accident.
40	Townsend	July 5, 1858	Shoemaker	M. 20	" " " " leg	16 h.	Circular	$\frac{2}{3}$	"	71 d.	
41	Gay	July 12, 1858	Minor	M. 13	" " " " foot	2 h.	"	$\frac{3}{3}$	"	120 d.	R. R. accident.
42	Townsend	Oct. 22, 1858	Mason	M. 32	" " " " "	2 h.	Circular	$\frac{1}{3}$	Recovery	83 d.	" "
43	J. M Warren	June 17, 1859	Washerwoman	F. 46	" " " " ankle	1 h.	Flap	$\frac{2}{3}$	"	116 d.	Tetanus.
44	Cabot	June 23, 1859	Minor	F. 19	" " " " leg	2 h.	Circular	$\frac{2}{3}$	Death	13 d.	R. R. accident. Hysteria.
45	Townsend	July 4, 1859	Laborer	M. 35	" " " " "	2 h.	"	$\frac{1}{3}$—$\frac{2}{3}$	Recovery	75 d.	" " [found at autopsy.
46	"	July 16, 1859	Seaman	M. 35	" " " " ankle	2 h.	"	$\frac{3}{3}$	Death	15 h.	" " Scalp wound. D. from lesions of brain
47	Gay	July 13, 1860	Laborer	M. 68	" " " " leg	2 h.	"	$\frac{2}{3}$	Recovery	56 d.	" "
48	"	Aug. 27, 1861	Minor	F. 2	" " " " foot	2 h.		$\frac{2}{3}$	Death	6 d.	" " Died from collapse.
49	"	Oct. 4, 1861	Laborer	M. 30	" " " " "	6 h.	"	$\frac{3}{3}$	Recovery	76 d.	" " Del. tremens. Resect'n of end of bones.
50	Cabot	Dec. 25, 1861	Blacksmith	M. 26	" " " " "	2 h.		$\frac{2}{3}$	"	85 d.	
51	Gay	Aug. 28, 1862	Minor	M. 14	" " " " ankle	3 h.		$\frac{2}{3}$	"		R. R. accident.
52	"	Oct. 27, 1862	Ropemaker	M. 22	" " " " "	5 h.	"	$\frac{2}{3}$	"	58 d.	
53	J. M. Warren	May 12, 1863	Minor	M. 9	" " " " leg	2 h.	"	$\frac{1}{3}$	"	24 d.	R. R. accident.
54	Clark	July 13, 1863	Laborer	M. 55	" " " " "	2 h.	Flap	$\frac{2}{3}$	Death	11 d.	Secondary hæmorrhages.
55	Hodges	July 15, 1863	Engineer	M. 22	" " " " "	2 h.	"	$\frac{2}{3}$	"	11 d.	R. R. accident.
56	"	July 18, 1863	Laborer	M. 26	" " " " "	2 h.	Circular	$\frac{1}{3}$	Recovery	75 d.	
57	"	Sept. 12, 1863	Carpenter	M. 58	" " " " "	3 h.	"	$\frac{3}{3}$	Removed	6 d.	R. R. accident. Scalp. Carried home by friends.
58	"	Sept. 15, 1863	Laborer	M. 32	" " " of both legs	3 h.	"	$\frac{1}{3}$	Recovery	94 d.	Amp. of rt. thigh. Resec. of end of fem. 3 m. later.
59	"	Sept. 29, 1863	Soldier	M. 24	" " " " "	3 h.	"	$\frac{1}{3}$	Death	6 h.	Double amputation. D. from shock.
60	"	Oct. 29, 1863	Laborer	M. 47	" " " " leg	3 h.	"	$\frac{1}{3}$	"	26 d.	Diarrhœa.
61	Cabot	Feb. 11, 1864	"	M. 35	" " " " "	2 h.	"	$\frac{1}{3}$	Recovery	64 d.	
62	Bigelow	Feb. 20, 1864	"	M. 33	" " " " "	3 h.	"	$\frac{3}{3}$	Death	8 d.	R. R. accident. Delirium.
63	Clark	April 2, 1864	Soldier	M. 30	" " " " ankle	16 h.	Flap	$\frac{3}{3}$	"	22 d.	" " Died from pyæmia.
64	Hodges	July 18, 1864	Minor	M. 4	" " " " both legs	3 h		$\frac{3}{3}$	Recovery	182 d.	" " Double amputation.
65	Cabot	Aug. 14, 1864	Laborer	M. 22	" " " " "	16 h.		$\frac{1}{3}$	Death	21 d.	Double amp. Tubercles and pyæmia shown at aut.
66	Bigelow	Dec. 8, 1864	Brakeman	M. 35	" " " " leg	9 h.	Circular	$\frac{3}{3}$	"	1 d.	R. R. accident. Amp. of arm in $\frac{1}{3}$.
67	Clark	April 18, 1865	Laborer	M. 20	" " " " "	2 h.	Flap	$\frac{2}{3}$	Recovery	80 d.	[D. fr. shock.
68	"	April 20, 1865	"	M. 31	" " " " "	2 h.	"	$\frac{2}{3}$	Death	6 h.	Laceration of neck, thigh, &c., fr. explosion of shell.
69	"	June 28, 1865	"	M. 56	" " " " "	$1\frac{1}{2}$ h.	"	$\frac{3}{3}$	"	3 d.	Delirium tremens. Sloughing of flaps.
70	Gay	Aug. 4, 1865	"	M. 35	" " " " foot	24 h.	"	$\frac{3}{3}$	Recovery	48 d.	
71	Hodges	Sept. 19, 1866	Seaman	M. 32	" " " " ankle		Circular	$\frac{2}{3}$—$\frac{3}{3}$	Death	8 h.	Fracture of ulna. Died from shock.
72	Gay	Nov. 2, 1866	Driver	M. 19	" " " " "	2 h.	"	$\frac{2}{3}$	Recovery	52 d.	R. R. accident.
73	"	Nov. 3, 1866	Bootmaker	M. 24	" " " " leg	2 h.	"	$\frac{1}{3}$	"	86 d.	" " Intoxication. Sloughing of flaps.
74	Bigelow	Nov. 23, 1866	Brakeman	M. 27	" " " " foot	2 h.	"	$\frac{2}{3}$	"	94 d.	" " "
75	Gay	Nov. 28, 1866	Minor	M. 12	" " " " leg	2 h.	"	$\frac{2}{3}$	"	61 d.	" "
76	Clark	Sept. 13, 1867	Laborer	M. 37	" " " " "	2 h.	Flap	$\frac{2}{3}$	"	69 d.	" "
77	Hodges	Oct. 17, 1867	Mechanic	M. 38	" " " " foot	2 h.	Roux's	$\frac{3}{3}$	"	72 d.	" " Amp. of right leg at knee-joint.
78	Bigelow	Jan. 15, 1868	Minor	F. 6	" " " " both legs	5 h.	Circular	$\frac{1}{3}$	"	99 d.	Double amputation.
79	Cabot	Jan. 20, 1868	Laborer	M. 28	" " " " ankle	4 h.	Flap	$\frac{2}{3}$—$\frac{3}{3}$	"	95 d.	R. R. accident. Contusion of other foot.
80	Hodges	Mar. 4, 1868	Teamster	M. 60	" " " " both legs	2 h.	Circular	$\frac{2}{3}$	Death	43 d.	D. fr. pyæmia.
81	Coolidge	May 26, 1868	Laborer	M. 42	" " " " leg		Flap	$\frac{1}{3}$	Recovery	74 d.	R. R. accident.
82	Hodges	June 6, 1868	Shoemaker	M. 43	" " " " "	2 h.	"	$\frac{2}{3}$	"	52 d.	" "
83	Clark	June 9, 1868	Carpenter	M. 19	" " " " "		Circular	$\frac{3}{3}$	"	24 d.	Boiler explosion.
84	Hodges	June 26, 1868	Shoemaker	M. 28	" " " " "	1 h.	"	$\frac{2}{3}$	Death	28 d.	R. R. accident. D. fr. pyæmia as shown at aut.
85	Coolidge	Aug. 6, 1868	Minor	M. 9	" " " " "		"	$\frac{1}{3}$—$\frac{2}{3}$	Recovery	42 d.	" " Toe amputated.
86	Gay	Nov. 6, 1868	Trader	M. 33	" " " " "	2 h.	"	$\frac{1}{3}$	Death	20 d.	" " Many sec. hæm.'s. Acute cystitis.

Table 15 (concluded.) AMPUTATIONS OF LEG.—TRAUMATIC—PRIMARY.

No.	Operator.	Date.	Occupation.	Sex and Age.	Nature of Injury.	Duration.	Amputation. Method.	Amputation. Place.	Result.	Length of Time.	Details.
87	Bigelow	Jan. 6, 1869	Laborer	M. 15	Comp. com. fract. of ankle	2 h.	Circular	$\frac{2}{3}$—$\frac{3}{3}$	Recovery	187 d.	Resection of end of bones. Sec. hæmorrhages.
88	Coolidge	June 19, 1869	Minor	F. 2	" " " of both legs	2 h.	Flap	$\frac{2}{3}$	Death	4 d.	R. R. accident. Double amputation.
89	Hodges	Sept. 14, 1869	Teamster	M. 37	" " " " leg	1 h.	Circular	$\frac{1}{3}$	"	6 d.	Contusion and gangrene of l. leg. Del. trem.
90	"	Sept. 23, 1869	Flag-man	M. 21	" " " " "	2 h.	"	$\frac{1}{3}$	Recovery	69 d.	R. R. accident. 4 toes amputated. Erysipelas.
91	Gay	Oct. 28, 1869	Laborer	M. 18	" " " "	2 h.	"	$\frac{1}{3}$—$\frac{2}{3}$	"	58 d.	" " Extensive scalp wound.
92	Cabot	Dec. 14, 1869	Painter	M. 28	" com. " " "		'	$\frac{2}{3}$	Death	30 h.	" " Convulsions. Died fr. collapse.
93	Hodges	Mar. 8, 1870	Laborer	M. 31	" " " "	2 h.		$\frac{2}{3}$	Recovery	50 d.	Erysipelas.
94	Gay	July 30, 1870	"	M. 19	" " " foot	3 h.	Flap	$\frac{3}{3}$	"	54 d.	Secondary hæmorrhage.
95	Hodges	Aug. 29, 1870	Minor	M. 9	" com. " " leg	2 h.	Circula	$\frac{1}{3}$	"	152 d.	Laceration of other foot.
96	"	Oct. 29, 1870	Laborer	M.	" " " " "	2 h.	"	$\frac{3}{3}$	"	147 d.	R. R. acc. Hos. gangr. Resec. of end of bones.
97	"	Nov. 3, 1870	Shoemaker	M. 19	" " " " foot	3 h.	Flap	$\frac{2}{3}$—$\frac{3}{3}$	"	65 d.	" " Erysipelas.

Recovered,	63	Deaths from Exhaustion,	17	Deaths from Cerebral Affection,	1
Died,	33	" " Collapse,	4	" " Unknown Cause,	1
	—	" " Pyæmia,	4		
	96	" " Shock,	3		
Removed,	1—Total 97	" " Compression,	2		
Ratio of mortality, 34.37		" " Peritonitis,	1		

R. R. accidents, 57, of which 18 were fatal.

Table 16. AMPUTATIONS OF LEG.—TRAUMATIC—SECONDARY.

No.	Operator.	Date.	Occupation.	Sex and Age.	Nature of Injury.	Duration.	Amputation. Method.	Amputation. Place.	Result.	Length of Time.	Details.
1	J. C. Warren	Feb. 4, 1822	Laborer	M. 60	Comp. fracture of leg	12 d.			Death	6 d.	Delirium tremens. Gangrene.
2	"	Nov. 10, 1827	"	M. 30	" " " "	11 d.	Circular	$\frac{1}{3}$	Recovery	65 d.	" "
3	G. Otis	June 3, 1829	Shoemaker	M. 27	" " " "	19 d.	"	$\frac{1}{3}$	Death	10 h.	Alco. habit. Great loss of blood. D. fr. col.
4	J. C. Warren	Feb. 26, 1830	Laborer	M. 49	" " " "	28 d.	"	$\frac{1}{3}$	Recovery	71 d.	" " " " " "
5	Hayward	June 9, 1831	Carpenter	M. 49	" " " "	1 y.	"	$\frac{2}{3}$	"	82 d.	Delirium tremens.
6	J. C. Warren	Feb. 8, 1834	Laborer	M. 24	Comp. com. fracture of foot	10 d.	"	$\frac{1}{3}$	Death	33 d.	R. R. accident. Gangrene.
7	Townsend	July 17, 1845	Painter	M. 40	Comp. dislocation of ankle	2½ mo.	"	$\frac{2}{3}$	Recovery	25 d.	
8	"	July 25, 1845	"	M. 21	" com. fract. of leg	15 d.	"	$\frac{2}{3}$	"	31 d.	Much sloughing before operation.
9	Bigelow	Sept. 21, 1847	Laborer	M. 25	" " " " "	6 d.	"	$\frac{2}{3}$	"	119 d.	R. R. accident. Resection of end of bones.
10	Hayward	Nov. 8, 1848	Minor	M. 10	" " " " foot	3 d.	"	$\frac{2}{3}$	Death	7 d.	Very nervous temperament. Tetanus.
11	Parkman	Dec. 7, 1848	Laborer	M. 24	" " " " ankle	10 d.	Flap	$\frac{2}{3}$	Recovery	83 d.	R. R. accident.
12	J. M. Warren	Feb. 11, 1849	"	M. 30	" " " " "	34 d.	"	$\frac{1}{3}$—$\frac{2}{3}$	"	54 d.	Fell upon leg while wrestling.
13	Parkman	Sept. 11, 1849	"	M. 25	" " " leg	18 d.	"	$\frac{1}{3}$	"	134 d.	Secondary hæmorrhage.
14	"	June 15, 1850	"	M. 22	" " " "	12 d.	"	$\frac{1}{3}$	"	140 d.	Erysipelas before op. Resection of end of bones.
15	J. M. Warren	April 30, 1851	Seaman	M. 31	" " " "	28 d.	Circular	$\frac{3}{3}$	"	62 d.	Delirium tremens. Neuralgia.
16	Parkman	July 28, 1851	Teamster	M. 29	" " " "	11 d.	"	$\frac{2}{3}$	Death	15 d.	Del. trem. D. fr. pyæmia, as shown at aut.
17	"	Sept. 29, 1852	Farmer	M. 33	" com. " " "	20 d.	Flap	$\frac{2}{3}$	"	7 d.	R. R. accident. Sec. hæmors. D. fr. pyæmia.
18	Bigelow	Jan. 7, 1854	Laborer	M. 40	" " " "	10 d.	Circular	$\frac{1}{3}$—$\frac{2}{3}$	"	14 d.	Delirium tremens. D. fr. pyæmia.
19	Townsend	July 21, 1854	Mason	M. 55	" " " "	22 d.			Recovery	18 d.	" " Erysipelas. Not fully healed.
20	"	Sept. 19, 1854	Carpenter	M. 22	" " " "	40 d.	"		"	198 d.	Imbecility.
21	Cabot	Jan. 13, 1855	Mechanic	M. 23	" dislocation of ankle	19 d.	"	$\frac{2}{3}$	"	47 d.	
22	"	Feb. 15, 1855	Laborer	M. 38	" com. fracture of leg	12 d.	"		"	86 d.	Intoxication.
23	J. M. Warren	April 30, 1857	"	M. 60	" " " " foot	2 d.	Flap	$\frac{2}{3}$	Death	26 d.	R. R. accident. Refused to submit to prim. op.
24	Townsend	Aug. 18, 1857	Minor	M. 14	" " " " "	8 d.	Circular	$\frac{3}{3}$	Recovery	93 d.	Sloughing of flaps.
25	"	Aug. 20, 1857	Laborer	M. 23	" " " " leg	21 d.	Flap	$\frac{1}{3}$	"	142 d.	Scalp wounds. Secondary hæm. Gangrene.
26	Bigelow	Dec. 22, 1857	Farmer	M. 60	" " " " "	2 mo.	Circular	$\frac{3}{3}$	"	32 d.	

Table 16 (concluded.) AMPUTATIONS OF LEG.—Traumatic—Secondary.

No.	Operator.	Date.	Occupation.	Sex and Age.	Nature of Injury.	Duration.	Amputation.		Result.	Length of Time.	Details.
							Method.	Place.			
27	Bigelow	Jan. 23, 1858	Housewife	F. 35	Comp. com. fract. of ankle	17 d.	Circular	3/3	Death	17 d.	Delivered. · D. fr. pyæmia as shown at autopsy.
28	Cabot	Dec. 4, 1858	Tailor	M. 49	" " " " leg	7 w.	"	1/3	Recovery	59 d.	
29	"	Jan. 24, 1860	Teamster	M. 65	" " " " "	18 d.	Flap	1/3	"	187 d.	Erysipelas. Resection of end of bones.
30	"	Feb. 18, 1860	Charwoman	F. 60	" " " " "	16 d.	Circular	3/3	Death	10 d.	D. from pyæmia.
31	J. M. Warren	June 23, 1860	Laborer	M. 58	Comp. com. fract. of ankle	38 d.	Flap	2/3	Recovery	235 d.	Del. trem. Erysipelas. Resection of end of bones.
32	Townsend	Aug. 6, 1860	Laborer	M. 22	Comp. com. fract. of leg	15 d.	Circular	1/3	Death	6 d.	Mucous and bloody stools. D. fr. pyæmia.
33	Clark	May 9, 1861	Minor	F. 4½	Fracture of ankle	20 d.	Flap	3/3	Recovery	29 d.	
34	Townsend	Aug. 12, 1861	"	M. 11	Comp. com. fract. of leg	16 d.	Circular	2/3	"	50 d.	
35	"	Aug. 31, 1861	"	M. 4	Laceration of foot	3 d.	"	2/3	"	50 d.	
36	Cabot	Nov. 1, 1861	Seaman	M. 40	Comp. com. fract. of leg	29 d.		2/3	Death	4 d.	No lesion found at autopsy.
37	'	Dec. 24, 1862	Minor	M. 5	Comminuted fract. of ankle	13 d.	"	1/3	Recovery	26 d.	R. R. accident. [1 year later.
38	Clark	Aug. 15, 1863	Fireman	M. 23	Comminuted fract. of foot	28 d.		3/3	"		" " Erysip. Resec. of end of bones
39	Bigelow	Nov. 21, 1863	Med. student	M. 24	Comp. disloc. at ankle	15 mo.	"	3/3	"	53 d.	
40	Cabot	Dec. 10, 1863	Shoemaker	M. 44	Comp. com. fracture of leg	2 d.	"	2/3	Death	3 d.	R. R. accident. D. from collapse.
41	"	April 21, 1864	Laborer	M. 55	Comp. disloc. at ankle	29 d.	Flap	2/3	"	8 d.	D. from pyæmia.
42	"	Dec. 28, 1864	Cabinetmaker	M. 53	Comp. fracture of leg	17 d.	Circular	2/3—3/3	Recovery	60 d.	Diarrhœa.
43	Hodges	Aug. 19, 1865	Fireman	M. 19	Comp. com. fract. of foot	55 d.	Flap	3/3	"	26 d.	R. R. ac. Pirigoff's amp. performed primarily.
44	Bigelow	Nov. 11, 1865	Cabinetmaker	M. 22	Comp. com. fract. of foot	14 d.	Circular	3/3	Death	13 d.	" " Del. trem. D. fr. pyæm. shown at aut.
45	"	Dec. 21, 1865	Laborer	M. 35	Comp. com. fract of ankle	21 d.	"	3/3	Recovery	64 d.	Phlebitis.
46	Cabot	Dec. 26, 1865	Tailor	M. 21	Comp. com. fract of foot	11 d.	Flap	3/3	Death	50 d.	R. R. accident.
47	Cabot	Nov. 11, 1867	Seaman	M. 18	Comminuted fract. of ankle	19 mo.	Flap	2/3	Recovery	93 d.	Resection of ends of bones 1 month later.
48	Hodges ·	May 12, 1868	Teamster	M. 27	Comp. com. fract. of leg	15 d.	Circular	2/3	"	45 d.	Delirium tremens.
49	Bigelow	Feb. 6, 1869	Laborer	M. 56	Comp. fract. of leg	21 d.		2/3	Death	12 d.	
50	Cabot	Feb. 19, 1869	Minor	M. 12	Comp. com. fracture of foot	6 mo.	Flap	3/3	Recovery	33 d.	R. R. accident.
51	Gay	Aug. 18, 1870	Clerk	M. 19	Comp. com. fracture of foot	9 d.	"	3/3	"	67 d.	Resection of end of bones.
52	Cabot	Dec. 23, 1870	Laborer	M. 27	Laceration of leg	1 mo.	Circular	3/3	Death	41 d.	Pyæmia suspected before amp. and found at aut.

Recovered, 34
Died, 18—Total, 52
Ratio of mortality, 34.61 per cent.

Deaths from Exhaustion, 8
" " Pyæmia, 8
" " Collapse, 2

R. R. accidents, 12, of which 6 were fatal.

Table 17. AMPUTATIONS OF LEG.—Pathological.

No.	Operator.	Date.	Operator.	Sex and Age.	Disease.	Duration.	Amputation.		Result.	Length of Time.	Details.
							Method.	Place.			
1	J. C. Warren	Dec. 19, 1823	Sailor	M. 21	Frost-bite of feet	13 d.	Circular	2/3			Double amputation. One flap.
2	"	May 22, 1825	Merchant	M. 21	Chronic dis. of ankle-joint	12 y.	Flap	1/3	Recovery	61 d.	
3	"	Dec. 17, 1825	Hackman	M. 41	Necrosis of tibia	2 y.	"	1/3	"	71 d.	
4	"	April 4, 1828	Grocer	M. 21	" " "	15 y.		2/3	"	30 d.	Nearly healed. Died one month later.
5	"	Mar. 5, 1829	Housewife	F. 50	Tumor of leg	10 mo.	Circular	1/3	"	65 d.	Chills and fever. Growth appearing in groin.
6	G. Otis	Feb. 11, 1830	Laborer	M. 44	Ulcers of leg and foot	20 y.	"	1/3	"	47 d.	
7	J. C. Warren	Dec. 18, 1830	Seaman	M. 43	" " "	1½ y.	"	1/3	"	83 d.	Alcoholic habit.
8	"	Jan. 19, 1833	Baker	M. 57	" " "	20 y.	"	1/3	"	62 d.	
9	Hayward	Mar. 2, 1833	Silversmith	M. 19	Deformity of foot	Cong.	"	1/3	"	32 d.	
10	"	Nov. 12, 1834	Shoemaker	M. 37	Ulcer of stump	3 y.	"	3/3	"	33 d.	Lisfranc's amp. of foot for frost-bite.
11	J. C. Warren	Feb. 6, 1836	Farmer	M. 43	" " "	14 y.	"	3/3	Death	20 d.	D. from pyæmia.
12	Hayward,	Feb. 13, 1836	Chaisemaker	M. 38	" " leg	4 y.	"	1/3	Recovery	46 d.	Secondary hæmorrhage.
13	"	Dec. 10, 1836	Woolspinner	M. 28	Caries of tarsus		"	1/3	"	51 d.	Erysipelas.
14	"	Jan. 21, 1837	Wheelwright	M. 43	Frost-bite of feet	24 d.	"	1/3	"	50 d.	Intoxication.

Table 17 (continued.) AMPUTATIONS OF LEG.—PATHOLOGICAL.

No.	Operator.	Date.	Occupation.	Sex and Age.	Disease.	Duration.	Amputation.		Result.	Length of Time.	Details.
							Method.	Place.			
15	Hayward	Nov. 23, 1837	Shoebinder	F. 25	Deformity of ankle	21 y.	Circular	[illegible]	Recovery	43 d.	Deformity followed blow on head. Hysteria.
16	"	April 17, 1838	Overseer	M. 38	Ulcer of leg	18 y.	"	[illegible]	"	88 d.	Opium habit. Malarial fever. Scald. Erys. [Sec'y hæmor. Lig. of fem. artery.
17	Townsend	Nov. 6, 1839	Laborer	M. 29	Tumor of leg	4 y.	"	[illegible]	"	55 d.	
18	"	Sept, 28, 1840	Mariner	M. 18	Ulcer of stump	16 mo.	"	[illegible]	"	32 d.	Foot seized by shark. Prim. amp. with razor.
19	"	Oct. 18, 1842	Farmer	M. 73	" " leg	7 y.	"	[illegible]	"	51 d.	
20	Hayward	Nov. 17, 1843	Teamster	M. 45	" " stump	18 mo.	"	[illegible]	"	28 d.	Conical stump.
21	Townsend	Mar. 10, 1845	Farmer	M. 60	Necrosis of tibia	20 y.	"	[illegible]	"	38 d.	
22	"	Dec. 23, 1846	Domestic}	F. 42	Chronic dis. of ankle-joint	8 y.	"	[illegible]	"	52 d.	
23	Hayward	Jan. 2, 1847	"	F. 56	Necrosis of tibia	7 mo.	"	[illegible]	"	91 d.	Erysipelas.
24	J. C. Warren	June 14, 1847	Mariner	M. 19	Tumor of leg	2¼ y.	"	[illegible]	"	230 d.	
25	Parkman	Aug. 23, 1848	Mechanic	M. 23	Chronic dis. of ankle-joint	1 y.	"	[illegible]	"	32 d.	
26	J. M. Warren	April 7, 1849	Minor	F. 17	Necrosis of tarsus	16 y.	Flap	⅔—3/3	"	27 d.	Spina bifida. Tenotomy of other foot later.
27	"	May 2, 1849	Domestic	F. 28	" " "	1 y.	"	[illegible]	"	59 d.	Erysipelas.
28	Hayward	Jan. 13, 1851	Seaman	M. 23	Caries of tarsus	15 y.	Circular	[illegible]	"	21 d.	
29	J. M. Warren	April 2, 1851	"	M. 22	" " "	16 mo.	"	⅔—3/3	"	71 d.	
30	Parkman	Oct. 10, 1851	Mechanic	M. 41	Chronic dis. of ankle-joint	9 y.	"	[illegible]	"	30 d.	Rheumatism.
31	Townsend	July 3, 1854	"	M. 64	Ulcer of leg	9 y.	"	[illegible]	"	40 d.	
32	Bigelow	Aug. 29, 1854	Laborer	M. 30	" of stump	9 mo.	"	[illegible]	"	37 d.	
33	"	Dec. 23, 1854	"	M. 22	Chronic dis. of ankle-joint	1 y.	"	[illegible]	"	68 d.	Pulmonary complication.
34	Townsend	May 15, 1855	Mechan c	M. 56	Ulcer of leg	17 y.	"	[illegible]	"	23 d.	
35	Bigelow	Jan. 26, 1856	"	M. 25	Gangrene of stump	15 d.	"	⅔—3/3	Death	35 d.	Syme's amp. before entrance. Hosp. gang.
36	"	May 16, 1856	Farmer	M. 43	Caries of tarsus	10 y.	"	[illegible]	Recovery	65 d.	
37	J. M. Warren	April 23, 1857	"	M. 53	Necrosis of tibia	43 y.	"	[illegible]	"	42 d.	
38	"	April 28, 1857	Mechanic	M. 25	" " tarsus	9 y.	"	[illegible]	"	68 d.	
39	Townsend	June 23, 1857	Laborer	M. 63	Ulcers of leg	37 y.	"	[illegible]	"	111 d.	Sec. hæmorrhages. Obstinate vomiting.
40	"	Aug. 29, 1857	"	M. 30	" " "	7 mo.	"	[illegible]	"	23 d.	
41	Bigelow	Oct. 13, 1857	Housekeeper	F. 56	" " "	10 y.	Flap	[illegible]	"	98 d.	Erysipelas.
42	"	Nov. 28, 1857	Mechanic	M. 22	Caries of tarsus	4 mo.	Circular	[illegible]	"	144 d.	Necrosis of end of bone.
43	"	Dec. 28, 1857	"	M. 50	Gangrene of foot	4 mo.	"	[illegible]	Death	82 d.	Resulting fr. lig. of fem. art. for popliteal [aneurism. Erysipelas. D. fr. pyæmia.
44	J. M. Warren	May 22, 1858	Laborer	M. 46	Caries of tarsus	1 y.	Flap	[illegible]	Recovery	63 d.	
45	Townsend	July 10, 1858	Lawyer	M. 47	" " "	2 y.		[illegible]	"	60 d.	Opium habit.
46	Gay	July 16, 1859	Teacher	M. 30	Ankylosis at knee	28 y.	Circular	[illegible]	"	47 d.	Erysipelas.
47	Townsend	Oct. 15, 1859	Machinist	M. 28	Caries of tarsus	4 mo.	"	[illegible]	"	82 d.	
48	Cabot	Dec. 10, 1859	Blacksmith	M. 30	Frost-bite of feet	10 d.	Flap	[illegible]	"	53 d.	Double amputation.
49	"	Jan. 2, 1860	Trader	M. 38	Caries of tarsus	9 mo	"	[illegible]	Death	55 d.	" " one a mo. later than the other.
50	"	Jan. 17, 1860	Teamster	M. 27	Frost-bite of feet	9 d.		[illegible]	Recovery	141 d.	Amp. of toe of left foot on 97th day.
51	Clark	Mar. 24, 1860	Farmer	M. 17	Caries of tarsus	9 mo.	Circular	[illegible]	Death	28 d.	Sloughing of flaps. Obstinate vomiting.
52	J. M. Warren	April 13, 1860	Minor	F. 13	Necrosis of tarsus	6 y.	Syme's	[illegible]	Recovery	35 d.	Congenital talipes varus.
53	Bigelow	July 30, 1860	Tanner	M. 18	" " "	6 y.	Flap	[illegible]	"	24 d.	
54	J. M. Warren	Aug. 25, 1860	Farmer	M. 16	" " tibia	10 mo.	Circular	[illegible]	"	50 d.	
55	Gay	Sept. 14, 1860	Clerk	M. 24	" " "	3 y.	"	[illegible]	"	75 d.	Hospital gangrene.
56	Townsend	Oct. 3, 1860	Farmer	M. 66	Ulcers of leg	12 y.	"	[illegible]	Death	20 d.	Atheroma. Sec'y hæmorr. D. fr. pyæmia.
57	Bigelow	Nov. 13, 1860	Domestic	F. 34	Pes equino-varus	Cong	"	[illegible]	Recovery	63 d.	
58	Cabot	Dec. 6, 1860	Farmer	M. 26	Necrosis of tibia	19 y.	"	[illegible]	"	137 d.	Sciatica.
59	J. M. Warren	Oct. 12, 1861	Minor	F. 15	Caries of tarsus	8 y.	Flap	[illegible]	"	34 d.	
60	Clark	Mar. 3, 1862	Fisherman	M. 26	Gangrene of foot	39 y.		⅔—3/3	"	79 d.	Following fracture of femur.
61	J. M. Warren	May 27, 1862	Housewife	F. 64	Ulcers of leg and foot	20 y.	"	[illegible]	Death	8 d.	Erysipelas. Profuse secondary hæmorrhage.
62	"	Mar. 13, 1863	Butcher	M. 57	Necrosis of tibia	20 y.	"	[illegible]	Recovery	209 d.	"
63	"	Mar. 26, 1863	Farmer	M. 20	" " tarsus	7 mo.	"	[illegible]	Death	14 d.	Profuse sec'y hæmorr. necess. lig. of fem. art.

Table 17 (*continued.*) AMPUTATIONS OF LEG.—PATHOLOGICAL.

No.	Operator.	Date.	Occupation.	Sex and Age.	Nature of Injury.	Duration.	Amputation. Method.	Amputation. Place.	Result.	Length of Time.	Details.
64	J. M. Warren	July 10, 1863	Clerk	M. 24	Necrosis of tibia	13 y.	Circular	$\frac{1}{3}$	Death	23 d.	Jaundice. Secondary hæmorrh. D. fr. pyæmia.
65	Clark	Sept. 18, 1863	Farmer	M. 25	Ulcer of stump	1½ y.	Flap	$\frac{1}{3}$	Recovery	21 d.	Primary amputation for gangrene.
66	Bigelow	Feb. 5, 1864	Lieutenant	M. 35	Conical stump	7 mo.	"	$\frac{1}{3}$	"	47 d.	Delirium tremens.
67	J. M. Warren	Mar. 28, 1864	Laborer	M. 38	Necrosis of tarsus	5 d.	Circular	$\frac{2}{3}$—$\frac{3}{3}$	Death	20 d.	Sloughing of flaps. D. fr. pyæmia.
68	Clark	May 21, 1864	Seaman	M. 20	Gangrene of feet	25 d.	"	$\frac{2}{3}$	Recovery	55 d.	Chopart's amp. of other foot. Not fully healed.
69	Hodges	June 20, 1864	Clerk	M. 25	Ulcer of stump	1 y.		$\frac{1}{3}$	"	73 d.	Primary amp. for bullet wound.
70	J. M. Warren	June 29, 1864	Turner	M. 30	Necrosis of tibia	25 y.	Flap	$\frac{2}{3}$	"	40 d.	
71	Hodges	July 7, 1864	Laborer	M. 55	" " "	25 y.	Circular	$\frac{1}{3}$	"	34 d.	
72	Clark	July 26, 1864	Soldier	M. 40	Conical stump	7 mo.	Flap	$\frac{2}{3}$	"	57 d.	
73	Gay	Aug. 1, 1864	Spinster	F. 24	Atrophy of leg and foot	22 y.	Circular	$\frac{2}{3}$	"	135 d.	Hospital gangrene.
74	J. M. Warren	Sept. 30, 1864	Clerk	M. 20	Tumor of leg	1 y.	Flap	$\frac{1}{3}$—$\frac{2}{3}$	Death	15 d.	Profuse secondary hæmorrhages.
75	Hodges	Oct. 11, 1864	Comedian	M. 34	Caries of tarsus	1 y.	Circular	$\frac{3}{3}$	Recovery	39 d.	Erysipelas.
76	Bigelow	Oct. 20, 1864	Seaman	M. 50	Necrosis of tibia	12 y.	Flap	$\frac{1}{3}$	"	77 d.	"
77	Clark	June 2, 1865	Minor	M. 12	Gangrene of leg and foot	30 d.	"	[$\frac{2}{3}$	"	71 d.	Following fract. of thigh and contusion of foot.
78	Gay	July 21, 1865	Clerk	M. 29	Necrosis of tarsus	3 y.	Circular	$\frac{3}{3}$	Death	9 d.	Same patient as No. 135. D. fr. pyæm. as sh. at aut.
79	Bigelow	Nov. 11, 1865	Spinster	F. 45	Caries of tarsus	2 y.	Flap	$\frac{2}{3}$—$\frac{3}{3}$	Recovery	60 d.	Erysipelas.
80	Hodges	Nov. 20, 1865	Minor	M. 7	Deformity of leg	1 y.	Circular	$\frac{1}{3}$	"	27 d.	Resulting fr. fracture.
81	J. M. Warren	Mar. 22, 1866	Tailor	M. 48	Ulcer of stump	28 y.	Flap	$\frac{3}{3}$	"	32 d.	
82	Clark	May 2, 1866	Seaman	M. 56	" " "	1½ y.	"	$\frac{3}{3}$	"	51 d.	Chopart's amp. 1½ years ago for gangrene. Erysip.
83	"	May 3, 1866	Widow	F. 59	Necrosis of tibia	7 y.	"	$\frac{2}{3}$	Death	16 d.	Erysipelas.
84	"	May 16, 1866	Lawyer	M. 27	Ulcer of stump	9 mo.	rcular	$\frac{2}{3}$	Recovery	48 d.	Primary amp. at $\frac{3}{3}$ for gangrene 8 years ago.
85	J. M. Warren	May 22, 1866	Lt. Colonel	M. 26	" " "	4 y.	Flap	$\frac{1}{3}$	"	34 d.	" " " $\frac{2}{3}$ " bullet wound.
86	Hodges	Sept. 18, 1866	Farmer	M. 23	" " "	2 y.	Teale's	$\frac{3}{3}$	"	39 d.	" " " $\frac{3}{3}$ 2 years ago. Intermittent fever.
87	"	Dec. 2, 1866	Laborer	M. 60	Necrosis of tibia	40 y.	Flap	$\frac{1}{3}$	Death	39 d.	
88	Bigelow	Dec. 15, 1866	Bootmaker	M. 19	Ulcer of leg	2½ y.	"	$\frac{2}{3}$	Recovery	32 d.	
89	Hodges	Dec. 15, 1866	Operative	F. 27	Caries of tarsus	1 y.	Circular	$\frac{1}{3}$	Death	25 d.	Slough. of flaps. [Circumcision. Erysip.
90	Cabot	Dec. 20, 1866	Barber	M. 28	Ulcer of stump	6 mo.	Flap	$\frac{2}{3}$	Recovery	54 d.	Prim. amp. 2½ yrs. ago in $\frac{3}{3}$ for bullet w'd. Syph.
91	J. M. Warren	Jan. 16, 1867	Clerk	M. 22	" " "	2½ y.	Circular	$\frac{2}{3}$	"	28 d.	" " " " $\frac{3}{3}$ " " Erysip.
92	"	May 21, 1867	Widow	F. 50	" " leg	18 y.	Flap	$\frac{1}{3}$	"	68 d.	
93	Bigelow	May 15, 1867	Minor	M. 16	" " stump	6 mo.	Circular	$\frac{2}{3}$—$\frac{3}{3}$	"	37 d.	Amputation 21 mos. ago. Bullet wound.
94	"	Sept. 9, 1867	Painter	M. 27	Tumor of foot	5 y.	"	$\frac{3}{3}$	"	40 d.	" Cancer."
95	Gay	Sept. 16, 1867	Mechanic	M. 32	Ulcer of stump	1½ y.	Flap	$\frac{2}{3}$	"	47 d.	Primary amp. at $\frac{2}{3}$—$\frac{3}{3}$ 13 years ago.
96	Hodges	Oct. 3, 1867	Operative	F. 20	Ankylosis at knee	10 y.	Circular	$\frac{1}{3}$	"	81 d.	
97	Gay	Oct. 10, 1867	Minor	F. 20	Painful stump	2 y.	"	$\frac{2}{3}$	"	87 d.	Prim. amp. at $\frac{3}{3}$ for gunshot wound.
98	"	Oct. 16, 1867	Mechanic	M. 32	Caries of tarsus	1 y.	"	$\frac{2}{3}$—$\frac{3}{3}$	"	214 d.	Excision 2 mos. earlier. Resection of end of bones
99	"	Nov. 21, 1867	Widow	F. 58	Ulcer of leg	5 y.	"	$\frac{2}{3}$—$\frac{3}{3}$	"	57 d.	Sloughing of flaps. Resec. of end of bones 1 y. lat.
100	Cabot	Nov. 23, 1867	Carrier	M. 28	Necrosis of tarsus	2 mo.	Flap	$\frac{3}{3}$	"	86 d.	Following amp. of toe. Resec. of end of bones.
101	Bigelow	Jan. 18, 1868	Housewife	F. 23	Gangrene of foot	2 mo.	Circular	$\frac{2}{3}$—$\frac{3}{3}$	"	42 d.	
102	"	Feb. 12, 1868	Pedlar	M. 23	Painful stump	4 y.	Flap	$\frac{2}{3}$	"	29 d.	Prim. amp. at $\frac{2}{3}$—$\frac{3}{3}$, 4 yrs. ago at the war.
103	Clark	Mar. 31, 1868	Shoemaker	M. 27	Pes equinus	17 y.	Syme's	$\frac{3}{3}$	"	52 d.	Tenotomy failed to remove deformity.
104	"	May 30, 1868	Tinsmith	M. 25	Ulcer of stump	2 y.	Flap	$\frac{1}{3}$	"	42 d.	Primary amp. 5 years ago at $\frac{1}{3}$ for bullet wound.
105	Bigelow	June 26, 1868	Domestic	F. 18	Painful stump	6 mo.	"	$\frac{3}{3}$	"	98 d.	Amp. 17 yrs. ago, at medio-tarsal artic. for gangr.
106	Coolidge	July 13, 1868	Cooper	M. 36	Caries of tarsus	2 mo.	Circular	$\frac{2}{3}$	"	41 d.	
107	"	July 18, 1868	Tinsmith	M. 26	Ulcer of stump	4 y.	Flap	$\frac{2}{3}$	"	23 d.	Amp. 4 years ago at $\frac{2}{3}$ for bullet wound.
108	Gay	Aug. 27, 1868	Laborer	M. 24	" " "	2 mo.	Circular	$\frac{2}{3}$	"	26 d.	" at $\frac{3}{3}$ for comp. com. fracture.
109	Bigelow	Sept. 22, 1868	Farmer	M. 58	Necrosis of tibia		"	$\frac{1}{3}$	"	39 d.	Erysipelas.
110	Hodges	Oct. 2, 1868	Minor	M. 19	" " "	1 y.	"	$\frac{1}{3}$	"	20 d.	Almost healed over.
111	Gay	Dec. 1, 1868	Widow	F. 59	Ulcer of stump	1 y.	Flap	$\frac{2}{3}$	"	30 d.	Primary amp. at $\frac{2}{3}$—$\frac{3}{3}$ for ulcer. (Vide Case 99.)
112	Cabot	Dec. 8, 1868	Minor	M. 15	Necrosis of tibia	4½ y.	"	$\frac{1}{3}$	"	34 d.	

Table 17 (concluded.) AMPUTATIONS OF LEG.—PATHOLOGICAL.

No.	Operator.	Date.	Occupation.	Sex and Age.	Disease.	Duration.	Amputation.		Result.	Length of Time.	Details.
							Method.	Place.			
113	Cabot	Dec. 17, 1868	Laborer	M. 23	Conical stump	4 y.	Flap	$\frac{2}{3}$	Recovery	35 d.	Primary amp. for caries of tarsus 4 years ago.
114	"	April 7, 1869	Seaman	M. 19	Painful stump	1 y.	"	$\frac{2}{3}$	"	69 d.	" " " comp. fract. of ankle 18 m. ago.
115	Gay	Sept. 14, 1869	Farmer	M. 69	Necrosis of tarsus	15 y.	Circular	$\frac{2}{3}$—$\frac{3}{3}$	"	52 d.	
116	Bigelow	Jan. 7, 1870	Minor	M. 11	" " "	1 y.	Flap	$\frac{3}{3}$	"	88 d.	
117	Hodges	May 6, 1870	Housewife	F. 37	Gangrene of leg and foot	3 mo.	"	$\frac{2}{3}$	"	46 d.	Alcoholic habit. Erysipelas.
118	Bigelow	June 28, 1870	Clerk	M. 22	Necrosis of tarsus	17 y.	Circular	$\frac{2}{3}$—$\frac{3}{3}$	"	47 d.	Secondary hæmorrhage. Erysipelas.
119	"	Nov. 29, 1870	Laborer	M. 44	" " "	9 mo.	Flap	$\frac{3}{3}$	"	66 d.	
120	Clark	Mar. 21, 1871	Minor	M. 17	" " "	3 mo.	Circular	$\frac{3}{3}$	"		

Recovered, 104
Died, 15

119
Unrecorded, 1—Total, 120
Ratio of mortality 12·60 per cent.

Deaths from Exhaustion, 9
" " Pyæmia, 6

The causes of amputation were:

Necrosis in	32 cases.	Tumors in	5 cases.
Ulcers of stump	20 "	Frost-bites	4 "
Ulcers,	16 "	Deformities,	3 "
Caries of tarsus,	16 "	Conical stumps,	3 "
Gangrene,	7 "	Ankylos. at knee	2 "
Painful stumps,	4 "	Club-feet,	2 "
Ch. dis. ankle-joint	5 "	Atrophy,	1 "

The number of deaths from each cause is as follows:

Exhaustion,	98=54.44 per cent. of fatal cases
Pyæmia,	42=23.33 " " " " "
Collapse,	21=11.61 " " " " "
Shock,	8= 4.44 " " " " "
Cerebral lesion,	2
" compression,	2
Peritonitis,	2
Tetanus,	2
Chloroform,	1
Malignant growth,	1
Unknown,	1

Total, 180 deaths in 692 cases=26.01 per cent. of mortality, exclusive of 7 cases in which the result is unknown or unrecorded.

This rate of mortality in Table 17 may be contrasted with that of Sir James Y. Simpson, calculated for British Hospitals with 100—200 beds, 23 per ct. (*Lancet*, Sept. 25, 1869, p. 431), with that of Mr. G. W. Callender for Country Hospitals having 150—270 beds, 18.86 per ct. (*Lancet*, Sept. 18, 1869, p. 420).

It may also be noted that the death rate from pyæmia compares very favorably with that reduced by Mr. Bryant from 300 cases of amputation in Guy's Hospital, in which it was 42 per cent. of all fatal cases. Sir J. Y. Simpson in his articles on "Hospitalism" holds that "50 per cent. of the deaths after amputation in our large hospitals are the result of pyæmia." (*Lancet*, Oct. 16, 1869, p. 538.)

The Massachusetts General Hospital contains 175 beds, including both medical and surgical, arranged in wards varying in capacity from 7 to 21 beds, and an out-building used for a foul-ward.

Tabular View of Results at the N. York, Pennsylvania and Boston City, and Massachusetts General Hospitals, and in the British Hospitals as reported by Sir James Y. Simpson.

TRAUMATIC PRIMARY.

	New York Hosp.				Pennsylv. Hosp.				Boston City Hosp.				Mass. Gen. Hosp.			
	Recovered.	Died.	Total.	Ratio of Mortality.	Recovered.	Died.	Total.	Ratio of Mortality.	Recovered.	Died.	Total.	Ratio of Mortality.	Recovered.	Died.	Total.	Ratio of Mortality.
Should. joint	3	4	7	57.14	9	2	11	18.18	2	6	8	75.	7	8	15	53.33
Arm	14		14	0.	53	5	58	8.62	10	4	14	28.57	29	7	36	19.44
Forearm	8	2	10	20.	78	5	83	6.2	9		9	0.	22	7	29	24.13
Hip-joint		2	2	100.						2	2	100.		1	1	100.
Thigh	4	12	16	75.	14	10	24	41.66	6	15	21	71.42	34	25	59	42.37
Knee-joint													2	3	5	60.
Leg	10	7	17	41.17	51	32	83	38.55	11	7	18	38.88	63	33	96	34.37

TRAUMATIC SECONDARY (After 24 hours).

	New York Hosp.				Pennsylv. Hosp.				Boston City Hosp.				Mass. Gen. Hosp.			
	Recovered.	Died.	Total.	Ratio of Mortality	Recovered.	Died.	Total.	Ratio of Mortality.	Recovered.	Died.	Total.	Ratio of Mortality.	Recovered.	Died.	Total.	Ratio of Mortality.
Should. joint	2	2	4	50.					1	1	2	50.				
Arm	3	1	4	25.	6	3	9	33.33	3	5	8	62.50	5	3	8	37.50
Forearm	2	1	3	33.33	7	4	11	36.36	2	0	2	0.	10	2	12	16.66
Hip-joint																
Thigh	8	6	14	42.85	9	6	15	40.	1	3	4	75.00	6	9	15	60.00
Knee-joint																
Leg	9	2	11	18.18	12	15	27	55.55	5	2	7	28.57	34	18	52	34.61

PATHOLOGICAL.

	New York Hosp.				Pennsylv. Hosp.				Boston City Hosp.				Mass. Gen. Hosp.				Simpson.			
	Recovered.	Died.	Total.	Ratio of Mortality.	Recovered.	Died.	Total.	Ratio of Mortality.	Recovered.	Died.	Total.	Ratio of Mortality.	Recovered.	Died.	Total.	Ratio of Mortality.	Recovered.	Died.	Total.	Ratio of Mortality.
Should. joint	1	1	2	50.	1		1	0.	1		1	0.	8	3	11	27.27				
Arm	3		3	0.	3	1	4	25.00	4	1	5	20.	28	4	32	12.50	56	22	78	28.20
Forearm	5	2	7	28.57	6		6	0.	4	2	6	33.33	23	4	27	14.81	60	15	75	20.
Hip-joint													2	0	2	0.				
Thigh	15	6	21	28.57	28	9	37	24.32	12	4	16	25.00	128	34	162	20.95	392	239	631	37.87
Knee-joint													7	4	11	36.36				
Leg	12	4	16	25.	21	7	28	25.	6	1	7	14.28	104	15	119	12.60	194	89	283	31.45

SUMMARY OF THREE PRECEDING TABLES.

	New York Hosp.				Pennsylv. Hosp.				Boston City Hosp.				Mass. Gen. Hosp.				Simpson.			
	Recovered.	Died.	Total.	Ratio of Mortality.	Recovered.	Died.	Total.	Ratio of Mortality.	Recovered.	Died.	Total.	Ratio of Mortality.	Recovered.	Died.	Total.	Ratio of Mortality.	Recovered.	Died.	Total.	Ratio of Mortality.
Should. joint	6	7	13	53.84	10	2	12	16.66	4	7	11	63.63	15	11	26	42.30	0	0	0	0
Arm	20	1	21	4.76	62	9	71	12.67	17	10	27	37.03	62	14	76	18.42	187	110	297	37.03
Forearm	15	5	20	25.	91	9	100.	9.	15	2	17	11.76	55	13	68	19.11	204	40	244	16.39
Hip-joint		2	2	100.						2	2	100.	2	1	3	33.33				
Thigh	27	24	51	47.05	51	25	76	32.89	19	22	41	53.65	168	68	236	28 81	500	435	935	46.52
Knee-joint													9	7	16	43.75				
Leg	31	13	44	29.54	84	54	138.	38.41	22	10	32	31 25	201	66	267	24.71	343	270	613	44.04

STATISTICS FOR THE FOUR AMERICAN HOSPITALS.

	Traum. Primary.				Traum. Secondary.				Pathological.			
	Recovered.	Died.	Total.	Ratio of Mortality.	Recovered.	Died.	Total.	Ratio of Mortality.	Recovered.	Died.	Total.	Ratio of Mortality.
Should. joint	21	20	41	48.78	3	3	6	50.	11	4	15	26.66
Arm	106	16	122	13.11	17	12	29	41.37	38	6	44	13.63
Forearm	117	14	131	10.68	21	7	28	25.	38	8	46	17.39
Hip-joint		5	5	100.					2	0	2	00.00
Thigh	58	62	120	51.66	24	24	48	50.00	183	53	236	22.03
Knee-joint	2	3	5	60.00					7	4	11	36.36
Leg	135	79	214	36.91	60	37	97	38.14	143	27	170	15.88

In view of contradictory opinions which have been held as to the effect of Chloroform upon the final result of surgical operations, it may be interesting to examine the foregoing tables with a view to deciding it may be in some measure the effect produced by the use of Sulphuric Ether upon the mortality of operations. The dividing line is fixed at January 1st, 1847, that being the date from which the use of this anæsthetic became the established habit in the Massachusetts General Hospital.

			Before Ether.			After Ether.		
No. of Table.	Limb.	Subdivision.	Recovered.	Died.	Ratio of Mortality.	Recovered.	Died.	Ratio of Mortality.
5	Arm	Pathological	4	0	0.	24	4	14.28
6	Forearm	Traumatic Primary	2	0	0.	22	7	24.13
7	"	" Secondary	1	1	50.	11	1	8.33
8	"	Pathological	4	0	0.	19	4	17.39
10	Thigh	Traumatic Primary	3	3	50.	31	22	41.50
11	"	" Secondary	2	1	33.33	4	8	66.66
12	"	Pathological	26	7	21.21	102	26	20.31
15	Leg	Traumatic Primary	4	1	20.00	59	32	35.16
16	"	" Secondary	5	3	37.50	29	15	34.09
17	"	Pathological	20	1	5.	84	14	14.28
			71	17	19.31	385	133	25.67

At first view this would seem conclusive against the use of anæsthetics, but a moment's reflection renders the fallacy sufficiently obvious. A vast number of operations, especially in chronic or long-continued cases, are submitted to by patients and willingly undertaken by surgeons at the present day, owing to the entire immunity from pain and the diminished danger from shock, which previous to the discovery of anæsthesia would not have been tolerated. Among these many, as is well known, terminate in recovery which formerly were allowed to die unrelieved, the mortality then not being less, but only attributable to the disease and not to the operation. Furthermore, it must be remembered that improved methods of treatment restrict amputations more and more of late years to cases of the worst character, offering often at the best but a faint chance of preserving life.

In 1856 Dr. James Arnott presented statistics to prove that chloroform had increased the danger of operations, but these were contradicted by other observers. So many considerations interpose, that a *post hoc* cannot become a *propter hoc* argument in a matter involving so many qualifying circumstances. Finally, in deciding this point, the kind of anæsthetic employed must not be lost sight of. If the paralyzing effect of chloroform upon the heart be as great as is alleged, the use of sulphuric ether is assumed, at least on this side the water, to be comparatively harmless.

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Original Communications.

RECORD OF THE OBSTETRICAL PRACTICE OF THE LATE DR. ROBERT THAXTER, OF DORCHESTER.

A paper read before the Dorchester Medical Club, by Benjamin Cushing, M.D., Dorchester.

Looking over the record of the obstetrical practice of my uncle, the late Dr. Robert Thaxter, it occurred to me that a brief summary of it might interest the members of this Club, who are now occupying the same field of labor. I therefore present it, leaving out all cases seen in consultation, as my object is to give a record of the private practice of a country physician. The cases recorded occurred between the years 1801 and 1852, a period of fifty years and six months. The first eight years of this time were passed in Hingham, and the cases were in Hingham, Weymouth, Cohasset, Hull and Scituate. The remainder of the time, Dr. T. resided in Dorchester, and his cases were in Dorchester, S. Boston, Roxbury, Milton and Quincy, with occasional calls to the islands in the harbor. Until within the last ten years of his life, the number of foreigners on his list was very small.

The whole number of cases attended by him, exclusive of those seen in consultation, is twenty-six hundred (2600). In 187 cases, the child was born before his arrival. Of these 187, 67 were primiparæ. On this fact will depend any value which may attach to Dr. T.'s remark, "that he never knew of a ruptured perinæum in a case of labor left to nature," as bearing on the question of the necessity of supporting the perinæum.

Of the 2600 cases, 191 only are noted as presenting any peculiarity, leaving 2409 vertex presentations, mother and child both doing well without interference.

Of the 191, 70 are marked either as dead, premature, or deformed, and these again were vertex presentations, making in all 2479 vertex presentations out of 2600 cases of labor. Of the 121 remaining cases, it is noted as follows:

Convulsions, 2. No comments except "forceps" in one.

Twins, 15 cases, out of which number 3 children were born dead, one having been dead, apparently, some time before birth.

Triplets, 1 case. The third child had died some time before birth. The other two lived, I believe, but a few days.

Face presentation, 3 times. No interference; mother and children both living.

Hand presentation, 1 case; *hand and foot presentation*, 1 case; both children born dead.

Foot presentation (not including twin cases), 9. 4 children born dead, two of which were premature.

Anterior fontanelle presented in 3 cases. One reduced to vertex, born dead. One reduced to vertex, born alive, and one, not interfered with, born alive.

Breech presentation (not including twin cases), 34. Of these, 6 born dead, of which number 3 are marked "putrid."

Funis presentation, 1 child born alive.

Foot and funis, 1 child born dead.

Face to pubis, 28. One case noted as "turned to sacrum"? In the remaining 27 cases no interference. 1 child born dead 27 born alive.

Forceps were used in 11 cases: once in convulsions; once after ergot; 4 of the children were born dead. Perinæum lacerated once. Knowing as I do, that Dr. T. was in the habit of avoiding instrumental interference as long as possible, I do not infer that 4 out of 11 cases of forceps delivery are fatal to the child, but rather that an earlier use of them might have been attended with better results.

Flooding. 2 cases are noted, in one of which the woman died 2½ hours after delivery. In the other case violent flowing two days before delivery, which ceased on rupturing the membranes, to return at labor.

Craniotomy, 4 cases, in one of which the woman died. I saw this last case. The woman had been a long time in labor, and the pains diminishing in force, it was proposed to use instruments. Patient and friends would not consent until nature was too far exhausted to rally. The patient died, not from the operation, but in spite of it.

Placenta prœvia, 5 cases. First case occurred in the year 1829. Hæmorrhage 5 weeks before labor and at labor. Turned and a living child. Mother did well.

2d case in 1830. Hæmorrhage two or three times before labor. Turned and gave ergot. Mother and child both living.

3d case in 1830. Hæmorrhage 8 or 9 days before labor. Continued more or less every day. Turned and delivered. Mother and child both living.

4th case in 1835. At the 7th month used belladonna ointment and gave ergot. Child dead.

5th case in 1848. Turned in consequence of profuse hæmorrhage. Placenta attached to the side of the neck of the womb. Child dead.

This record, I am aware, will compare neither in number of cases nor minuteness of detail with hospital tables, but it is, I think, not without value; first, because it is one of private practice, and secondly, because it is a private memorandum, and was not designed for publication. It will be noticed that it deals only with what occurred at the time of labor.

CASE OF POISONING BY OPIUM.

By Israel T. Hunt, M.D., Boston.

On the afternoon of Tuesday, the 5th of December, I was called in haste to Miss P., on Lowell Street, who, I was informed, had taken a large quantity of tincture of opium for the purpose of committing suicide. She had, as I afterwards ascertained, been absent from the house since breakfast-time, had eaten nothing during the interval, but had taken three or four drinks of whiskey. She obtained the poison from a South-end druggist, and upon her return to the house, retired immediately to her room and took the contents of the bottle, which contained a fluid ounce. This was about 4 o'clock, P.M. The bottle contained a few drops of laudanum when shown me a short time after my arrival at the house. I was informed by her friends that she had labored under considerable mental depression for some time previous, and had repeatedly threatened to take her life.

I arrived at the house at a quarter before 5 o'clock, and found the patient with a full, bounding pulse, of about 100, the pupils of the eyes, minutely contracted, and insensible to strong light, the face and conjunctivæ congested, and the breath exhaling the characteristic odor of opium. The respiration was normal. She was quite drowsy, requiring a vigorous shake to arouse her sufficiently to enable her to comprehend or answer my questions, and falling asleep as soon as it was discontinued.

Not having a stomach-pump, or tube, I administered an emetic of thirty grains of sulphate of zinc and ten grains of sulphate of copper in a goblet of warm water, which I repeated in fifteen minutes. These failing to operate, I gave her an emetic of salt and mustard in the same quantity of warm water as before, and at half-past five she vomited about a pint and a half of semi-transparent liquid, of a pale yellow color, which seemed to consist simply of the emetics that had been administered. No odor of opium was perceptible in the liquid, nor was there any appearance of food.

During this time the patient had been walked about the parlors, which were connected by folding doors, and vigorous flagellations applied with twisted towels, and the back of a hair brush applied to the nates and thighs. I also attempted to administer strong coffee and whiskey, but with very little success, the patient obstinately refusing to swallow, and soon vomiting the little I had succeeded in forcing her to take.

The somnolency gradually increased until 7 o'clock, when the most severe flagellations failed to produce the slightest impression upon her, and she was in a state of profound narcotism. So perfect was the narcosis that no reflex action followed the introduction of the finger into the fauces, or the passing of a feather over the globe of the eye. The skin was cool and covered with a profuse, clammy perspiration, the pulse about 40 per minute, and feeble, and the features pinched and shrunken.

Dr. McDonough, who had been previously called, now arrived, and I briefly detailed to him the treatment I had pursued. After examining the patient, he suggested the propriety of administering a hypodermic injection of atropia, which was at once carried into effect, an eighth of a grain of the sulphate in ten minims of water being injected into the fleshy part of the arm, directly over the biceps muscle. Ascertaining from Dr. McDonough that he had a battery in his office, I suggested that electricity be applied, and during his absence in quest of it, I had the patient undressed and placed in bed, and gave her an enema of about four ounces of whiskey with twenty grains of carbonate of ammonia. Stone bottles filled with hot water were also applied to her feet, legs, and the inside of the thighs. After the arrival of the battery, it unfortunately proved to be unserviceable, the zinc plates not being sufficiently amalgamated. Not being able to obtain another from any of the neighboring physicians, we applied to the Massachusetts General Hospital, where we fortunately secured a large magneto-electric machine, which arrived at a little after 8 o'clock. At this time the patient's condition appeared to be hopeless. The pulse was scarcely perceptible, the extremities cold, the lips and finger nails dusky blue, and the respiration diaphragmatic in character. In applying the battery, one electrode was placed in the patient's right hand and secured with a tape, the wet sponge electrode being passed up and down the spine, the surface of the skin having been previously moistened with water to increase its conducting power. The strongest current that the battery was capable of producing was applied for ten minutes without intermission. Shortly after this the pulse became stronger, the respirations more natural in character, and the color partially returned to the lips and under the nails.

From this time until half-past one, A.M., the battery was applied at intervals of fifteen minutes, each application lasting from five to ten minutes. During the second application, the belt which connected the crank with the apparatus for breaking the current was broken, and some little time elapsed before it could be repaired. The same formidable symptoms reäppeared which existed before the first application of the electricity, the action of the lungs and heart being almost suspended, and the dusky color again returning to the face. These symptoms again rapidly yielded to the next application of the current. About half-past two, A.M., the patient experienced considerable difficulty in breathing, occasioned by collections of mucus in the air-passages which she was unable to expel. This was relieved by the use of the sponge probang. Near 4, A.M., she began to show symptoms of returning consciousness, moving her arms about uneasily, and moaning feebly, but was still sufficiently narcotized not to be aroused by shaking. At half-past four she became partially conscious, recognizing one of her friends, and complaining of pain and thirst. At 5 o'clock, I left the house. I omitted to mention that no relaxation of the sphincters occurred. About a pint and a half of whiskey and three drachms of carbonate of ammonia was given in the form of enemas during the night, which was fully retained. The urine was drawn off once during the night.

Reports of Medical Societies.

SUFFOLK DISTRICT MEDICAL SOCIETY. REPORTED BY J. H. MC'COLLOM, M.D., BOSTON.

THE Society met Nov. 25th, Dr. G. H. Lyman, the President, in the chair.

The use of Alcoholic Liquors influenced by Climate.—Dr. Bowditch gave the result of investigations which he had made on the use of alcoholic beverages in various countries of the world and the opinion he had formed on the subject. Farther mention of his communication is purposely omitted at this time, as it will appear in full in the annual report of the State Board of Health.

Hall's Treadle for Sewing Machines.—The inventor of Hall's patent treadle for sewing machines exhibited his invention by invitation of one of the members of the Society. A more extended account of this treadle and its advantages is given in the JOURNAL for Dec. 7th.

Tumor Removed from the Labia Minora.—Dr. Cheever exhibited a tumor which he had removed with the écraseur from a woman 35 years of age. The antecedents of the patient were good. The tumor, which was afterwards found, by the microscope, to be fibro-cellular in its nature, was attached to the clitoris and labia minora, and resembled somewhat in appearance the scrotum of the male. The urethra was not involved, although the act of micturition was performed with some difficulty on account of the pressure of the tumor. This growth was first noticed about four years ago, and had gradually increased up to the time of its removal, when it had attained the size of an orange. Two years ago the patient was confined, the delivery being much retarded by the presence of this tumor, which was then about one-half as large as at the time of the operation. The patient was in the seventh month of pregnancy, and it was decided to operate, as nearly as possible, midway between the menstrual epochs. There was no hæmorrhage at the time of the operation; but three or four days subsequently there was a little bleeding from the erectile tissue near the base of the tumor. This was controlled by styptics, and the case progressed favorably.

Tumor at Neck of Bladder.—Dr. Ayer

related the following case: The patient, a woman, had retroversion of the uterus some years ago; but with this exception had enjoyed good health until quite recently, when she complained of such severe pain in the pubic region as to necessitate the constant use of opiates. Upon examination, a hard, firm, immovable tumor, attached to the pubic bones and surrounding the urethra, could be felt. The urethra was so compressed that the bladder could only be evacuated by the aid of the catheter. The tumor was quite vascular; there was constant hæmorrhage, from which, finally, the patient sank and died. The situation of the mass was such that there was no chance for operative interference.

Photomicrography and the Ambulance Americaine.—Dr. F. H. Brown showed a series of photographs taken by Dr. Woodward, Ass't Surg. U. S. A. at the Army Medical Museum, Washington (JOURNAL for November 30th, 1871). He also exhibited a view, with sections and plans, of the American Ambulance, established and carried on near the Avenue de l'Imperatrice during the investment and siege of Paris. The plans were drawn up with especial reference to showing the system of heating employed by Dr. Edward A. Crane, of Paris, the Secretary of the International Sanitary Committee. The ambulance itself consisted of five hospital tents, each fourteen feet long and fifteen feet broad, giving a total length of seventy feet. The hospital held twenty-six beds. Under the entire length, a trench was dug, some six or eight feet deep at one end, and quite near the surface at the other. A furnace at the deeper end furnished the heat. The products of combustion were conveyed through an iron pipe the length of the trench, and were discharged through a chimney at the farther end. Registers connected with this trench and admitted the warmed air to the tents. The past winter was a very severe one in Paris; but Dr. Crane states that the method of heating employed kept the tents continually at a good temperature.* He speaks, too, in high terms of the system of tent hospitals. While hospital gangrene, pyæmia and similar diseases were very frequent in the hospitals, not a single case occurred in the ambulance.

Typhoid Fever with Perforation of the Intestine.—Dr. Lyman stated that he had just lost a patient from perforation of the intestine in a mild case of typhoid fever. The case was going on very favorably, until the patient indulged in forbidden articles of food, which, from their indigestible nature, caused irritation and perforation.

Dr. Abbot remarked that in a case of typhoid fever under his care, perforation was caused by eating an apple after the patient was convalescent, and he also said that only the blandest articles of food should be given for a considerable time after the subsidence of the fever.

The Society adjourned.

BOSTON SOCIETY FOR MEDICAL IMPROVEMENT.
F. B. GREENOUGH, M.D., SECRETARY.

Nov. 13th, 1871.—*Bifid Uvula.*—Dr. HODGES showed a cast, which had been taken, of the roof of the mouth of a young woman, at the Massachusetts General Hospital. The whole of the roof of the mouth, both hard and soft palate, was perfect, the only thing abnormal being a slight split at the extremity of the uvula, and yet the patient's voice was such as is heard in a case of very severe cleft palate.

The case was a very interesting one, as bearing on the question of staphyloraphy. No operation could in any case make the hard and soft palate more perfect than it was in this case, and yet the voice is as bad as though there were a large fissure.

Dr. H. J. BIGELOW first called attention to the fact that whatever the success of the operation in closing the fissure may be, the voice is benefited very little, if at all, by it. Dr. Hodges himself had operated in twenty-eight cases, and had never seen any improvement in the voice. The German surgeons have come to the same conclusion, and during the past year have been using an obturator, which has just been invented, which improves the voice more than any operation can. In these cases the deficiency in the voice is due only in part to the cleft in the palate, but mainly to an affection of the muscles.

Dr. H. K. OLIVER thought that bifid uvula was much more common than is usually supposed. He had seen several cases, but none in which the voice was affected.

Dr. HODGES said it was not the split that caused the abnormal voice, but the fact of the velum palati not closing up the posterior nares. The result is the same as regards the voice, whether the inability to close the posterior nares is due to a lack of muscular power, or to a split in the soft palate. The object of the operation for cleft palate is two-fold. First, to improve the voice, which it does not do, and, second, to prevent the impaction of food in the larynx and nares, which is a source of great annoyance to the patient. Moreover, the moral effect of the operation is a good one, as the patients always feel more cheerful if the palate is restored, even if the voice be not improved.

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* This method of heating the tents will be recognized as that employed in our own army tents during the late war of the rebellion.

Dr. CHEEVER spoke of a case of cleft palate, where he had operated on a girl 5 years old. He got perfect union down to the very tip of the uvula, the length of which, also, was about normal, and yet there was no improvement of the voice. The same was true, also, in several cases, where, as far as the operation went, he had got very good results. He did not see how the condition of the muscles of the palate could be improved by an operation, as, being already weakened, they are divided and reunite, forming rigid bands. He mentioned an obturator which he had seen worn with great benefit, a description of which was given in one of the graduating theses at the college.

Dr. HODGES had seen the patient referred to by Dr. Cheever, and thought that the voice was more improved by the obturator than it could have been by any operation. A more perfect one, however, had been made recently. The operation for staphyloraphy as now done, under ether and with the gag, is by no means a trifling one. The pressure of the gag and the etherization causes the venous hæmorrhage to be very profuse. He had had more than one case where a severe hæmorrhage had nearly carried off the patient, and other operators had experienced the same thing.

Nov. 27th.—*Phlebitis—possibly Embolus.* Dr. COTTING reported the case.

Mrs. —— was confined with her ninth child on April 13th. She suffered much from nausea and vomiting through the whole time of pregnancy, and, in a word, was wretched. On the morning of the 13th, labor commenced, and was over in an hour or two. At night the urine was drawn; but she afterwards went on perfectly well in every respect till May 2d, three weeks later, when an abscess appeared to be forming in the right breast near the nipple, about as large as a walnut. She had had one there in a former confinement. The nurse, one of the officious, conceited kind, applied a scalding poultice to "hurry along" the abscess. She suffered much from pain during the scalding process, and a large slough was the consequence of it. She was, some days afterwards, exposed to cold by the same nurse, who left her lying on a sofa with a window open so that she was obliged to get up to shut it, and thus, apparently, took a "severe cold." Then followed several days of dyspnœa and pain in the right side, the dyspnœa coming on in paroxysms.

About the 10th of May, pain came on in the right groin and thigh, with great tenderness and the feeling as of a cord along the vessels. No swelling of leg. The pain and dyspnœa gradually disappeared; still she would occasionally have paroxysms of cough, and seemed inclined to expectorate without being able to. Urine normal throughout. At times, there occurred sweating turns, with some coolness, but no fever. Pulse always high—from 120 to 130, for two or three weeks. She, however, gradually improved, and by the last of May appeared convalescing. Appetite, however, continued rather deficient.

In the first week in June, eighth week of illness, she was taken down stairs, but was not so well after it, although there was no marked symptom. During the last fortnight, had been moved about, and into another room. She could not put her foot down to the floor, but nearly so. Had little or no power to move the right leg.

During first half of July was cheerful, and felt herself improving; and had without conscious effort crossed her legs. She complained that attendants crowded her with too much food. On the 14th of July, she ate a cream-cake, but vomited it.

Towards night and during the night of the 14th of July (13th week), she had a severe rigor. There was cold perspiration, particularly upon the right leg. Pulse 150 to 160. All the time she was conscious, spoke in a pretty full voice, and unaware that there was anything alarming in her condition. Considerable nausea and a tendency to, retch disturbed her. Great dyspnœa and breathlessness came on with the rigor, and respiration was very rapid and panting. No pain of any consequence. In the morning, there was rather more pain than lately about the right hip, where it had been troublesome previously. She looked pale and exhausted; rolled the eyes round unnaturally. Want of air the chief thing complained of. Had a peculiar feeling in the left upper arm, but not absolutely painful. This state of things lasted irregularly about three days.

Before this last attack, had had pain in shoulder, and now and then in other leg. There had also been during illness a paroxysmal cough at times; also paroxysms of very rapid breathing, but more like nervous paroxysms.

The temperature during and after the

rigor was sometimes below, rarely, if ever, above normal.

There were no marked physical signs; apparently less respiration in right back than would be expected.

Possibly a souffle, or something like one, over the right ventricle and to the right of it.

Recovery very slow. Now, Nov. 27th (7½ months), about house, though not fully able to go up and down stairs.

Dr. Calvin Ellis, who saw the patient with Dr. Cotting, and agreed with him that the supposition of an embolus gave the most satisfactory explanation of the peculiar symptoms, said that the symptoms which particularly attracted attention at the time of his visit were those connected with the last attack, viz., the severe rigor, the rapid pulse, the marked dyspnœa and the normal temperature. These, with the previous attack of dyspnœa and pain in the right side, appeared to indicate some thoracic disease. But the absence of any considerable cough, or heat of skin, or of other signs of ordinary acute disease, was so striking as to lead to the supposition that something unusual would be found. The examination of the chest was necessarily brief and not so thorough as was desirable. It showed perhaps some deficiency of respiration in the right back and a possible soft souffle over the right ventricle, but nothing marked, nothing which could properly be regarded as an explanation of the symptoms.

Nevertheless, this absence of physical signs was of the greatest value, as it enabled us to exclude certain ordinary diseases, and seek for some other lesion which could give rise to the great dyspnœa, quick pulse, and rigors, with normal temperature. If we review the history of the case, we find that the first attack of pain in the side was contemporaneous with thrombose of the femoral vein, and that the evidences of the latter were still clear at the time when the symptoms above mentioned manifested themselves. If, now, we compare these symptoms with those noticed in *embolism of the pulmonary artery*, we see a striking correspondence. Dr. B. Kohn, in his monograph on embolism (Berlin, 1860), says: "If we can exclude anæmia and stenosis of the pulmonary artery, and can at the same time discover the source of an embolus and have the signs of the accident in the shape of rigors, sudden dyspnœa, &c., the diagnosis of emboli is hardly to be doubted, and rarely erroneous."

The testimony bearing upon certain symptoms which are absent is equally strong. He says: "Cough and expectoration are very rare with simple emboli," and "if the latter do not excite inflammation they cause a lowering of temperature." After enumerating many symptoms connected with obstruction of the circulation, he says: "These may be absent, however, even when emboli are of large size." One more quotation indicates the great value of sudden dyspnœa and the difficulty of diagnosis. "With the exception of the single phenomenon of sudden dyspnœa, with a complete power of distending the chest, there is no symptom which may not occur in connection with other diseases of the heart and lungs."

Dr. J. B. S. Jackson spoke of a case reported by Dr. Ellis at a previous meeting, where the main trunk of the pulmonary artery was found to be plugged up, and yet there had been no symptoms during life. He had seen other cases where there had been embolisms of large arterial branches without any symptoms being called forth. He thought that it might almost be stated to be a law of pathology that like causes do not produce like effects.

Bibliographical Notices.

The late Dr. John Conolly, of Hanwell, England. By Chas. A. Lee, M.D.

This pamphlet is reprinted from an article in the *Practitioner* for August, and is a eulogy upon the life and labors of Dr. Conolly, who died in 1867. The name of Conolly is properly associated with those of Pierce and Tuke, as advocates of the non-restraint system in the care of the insane. They were all hospital superintendents and demonstrated the possibility of a general disuse of mechanical restraint at their own peril, in their own institutions, and in the midst of an unbelieving and ignorant age. All honor to their personal devotion to their work which rendered such results possible!

Notwithstanding these results, which seem so perfect when reflected in the writings of enthusiastic admirers, absolute non-restraint in the care of the insane is out of the question. The point is not whether a devoted man with all desirable assistance can manage a hospital without restraint, but whether it is in all cases best for the individual; and whether public sentiment and hospital regulations shall totally disarm a physician of an appliance which he may deem essential to the life, or recovery of his patient. Restraint through fear of insane violence is seldom used, and when required, seclusion instead of personal restraint is the rule; but seclusion or restraint will in some form be demanded while insanity is what it is.

In spite of former and existing abuses of mechanical restraint, it will be found to be the almost universal opinion of hospital superintendents, that it is often necessary and beneficial. The proportion of cases requiring it is small, no doubt. One per cent. is about the proportion, at the Boston Hospital for the insane. Here the *camisole* alone is used, a long sleeved apron of drilling which keeps the arms folded. This is used by some at night only, by some while at large in the wards, and by others who require confinement to bed for a time. To disuse restraint, or substitute seclusion as is too often done, in these few cases, would be to overlook abuses, run risks, and lose chances of improvement. No number of attendants, no amount of free air, and exercise, could take the place of it.

Public opinion here, is not quite so tyrannical as in England. It is subject to spasms of suspicions and excitement, and certain impracticable theories are from time to time held up for the general admiration. We have no system of private asylums however, and no feudal traditions of family authority. The individual has a fair chance even in what are called "relics of barbarism"—that is, hospitals for the insane! The son of a distinguished advocate of non-restraint in England, recently confessed that he was so hampered by the traditions of his father's theories, that his patients frequently suffered by it.

It is not desirable to argue the question of non-restraint here since it has been fully and freely discussed, in the light of modern experience, and it is unnecessary to go back to Conolly's work at Hanwell. If the public would seek information where it is on record in the journals of mental science, instead of accepting the views of inexperienced theorists, or taking tone from sensational novelists, more correct opinions would prevail. Even Charles Reade is learning moderation, and confesses to want of discrimination and to prejudice on this subject.

It is hard to convince one of the superiority of seclusion over the mechanical restraint, who has seen the frequent deaths from delirium tremens in the "dumb cells" of some of our public institutions give place to invariable recovery on substituting personal restraint. One might as well expect to manage delirium tremens in all cases by moral suasion as to control all forms of insanity in the same way. Cerebral disease destroys the receptivity of the mind entirely at times, and stimulates to a violent motor activity which encourages and perpetuates itself. Enforced quiet will give opportunity for nourishment, for the quieting action of remedies. and for the soothing effects of good nursing. Excitement may sometimes be left to *run itself out,* but the last wane of nerve force often runs out with it.

For these reasons we regret a too sweeping commendation of the non-restraint system. Let this question be discussed in a spirit of scientific criticism—without the heat of partisan controversy, or of indiscriminate philanthropy. Dr. Lee may be excused for not dwelling upon the exceptions to the humane rule advocated by Conolly. His eulogistic notice, also, commends the plans for hospital construction of this lamented alienist. The noble county asylums of England, with their extensive farms and fine locations, are monuments to his memory. T. W. F.

A Report of the Surgical Cases treated in the Army of the United States from 1865 *to* 1871. War Department, Surgeon General's Office, Washington: 1871. Pp. 296.

In this document, Dr. George A. Otis, of the Surgeon General's office, has given us a resumé of the returns made by the medical officers of the army, so far as they relate to surgical matters; it is especially rich in the description of gun-shot wounds. The whole report includes 1037 cases, being the most interesting cases selected from an aggregate of casualties numbering over 60,000. The document not only lays before us examples of interesting cases, but it calls the attention of members of the medical staff to the importance of more fully investigating and recording cases presenting points of value in medical science.

We notice that Cundurango has been subjected to trial, at the request of the Surgeon General, by Surgeon Norris, of Washington. His report bears out the testimony of surgeons in civil life that the drug is absolutely worthless for the purposes claimed for it. We are glad to note a quiet reproof of the unwarrantable part taken by the State Department in puffing this remedy. The mention of Cundurango closes thus:—"If the verdict is that anticipated by pathologists whose powers of analogical reasoning do not permit them to discern the pathological affinities of cancer, syphilis, scrofula and indolent ulcers, every one who has aided in augmenting the misery of incurables in the interest of commercial speculation will occupy an unenviable position."

The details of arrow wounds, the extraction of vesical concretions having foreign bodies as nuclei, a case of transfusion, instances of lightning stroke, and a death from chloroform, the results of amputations at the hip joint and excision of the hip, and one instance of recovery after amputation of all four limbs, all make this volume one of interest both to civil and to military surgeons.

A Treatise on Human Physiology: designed for the use of Students and Practitioners of Medicine. By John C. Dalton, M.D., Professor of Physiology and Hygiene in the College of Physicians and Surgeons, New York, &c. Fifth Edition, revised and enlarged. Philadelphia: Henry C. Lea. 1871. Pp. 728.

The work on physiology by Dr. Dalton is too well known and too highly esteemed to need any farther notice from us than has already been given in our pages. The present edition has been carefully revised, and re-written to such an extent as the advance of physiological research has required. It is now, as the author claims it to be, "a faithful exponent of the actual condition of physiological science."

Eating and Drinking: A Popular Manual of Food and Diet in Health and Disease. By George M. Beard, M.D. New York: G. P. Putman & Sons. 1871. Pp. 180.

This book is a companion to "Stimulants and Narcotics," noticed in the Journal for November 23d. It treats of the different kinds of food, and the dietetic habits of the principal races. The author does not believe in diet tables, nor in eating from the scales; but in a varied and generous diet, such as is in a great measure suggested by the appetite. The much abused tables of Dr. Beaumont are wisely omitted, and the rules by which our diet should be regulated are plain and sensible. It is a readable book, with none of the nonsense so common in medical manuals for popular use. G.

M. Blache, late President of the Academy of Medicine, died recently in Paris. He was son-in-law of M. Guersant.

Selected Papers.

MUSCULAR ANÆSTHESIA.

Dr. Alfred Carpenter, of Croydon, related the following cases of muscular anæsthesia at a recent meeting of the Medical Society of London.

The cases were two intelligent young ladies, the daughters of a city gentleman. The elder, M. H., æt. 28, of average good general health, every function of organic life being properly performed, all the natural functions of the body being in a healthy state; has been under the care of Dr. Carpenter for the last three years without material alteration, except a gradually slow but decided decrease in muscular power. Now she cannot rise from her chair without assistance; the attempt when made with aid is clumsily and awkwardly performed; when she has gained the erect position she staggers, and is uncertain in her gait; her movements corresponding with those observed in intoxicated persons. The foot being raised from the ground there is an uncertainty as to where it will be placed, and it goes down with force, the heel first reaching the ground with a blow. As she cannot see the foot she cannot tell how far it is from the ground. She can only retain the upright position as long as she knows assistance is at hand. She has more difficulty in starting than in continuing her movements. If she stands, and is told to shut her eyes and move, or if she is in the dark, she cannot remain upright, but at once falls. There is, however, no material loss of power, for the individual muscles are still strong, and some force is required to bend her joints against her will, though the muscular power is much less than it was two years ago. She can still lift a considerable weight and carry it if her eyes are fixed upon it. Her sight is good, the pupils act equally and freely, and there is no defect in the coördinating power of the optic muscles. There is no congestion of the conjunctiva; no amblyopia. There is no want of association in the muscles of expression, but there is a slight effort required in speaking. There is clumsiness of movement in the upper extremity, for she cannot button a button or put in a shirt stud unless she looks at it. She cannot use her fingers with any precision when out of sight, but can execute drawings of considerable merit. She used to play on the piano very well, but for the last five years the requisite movements have become unsteady and imperfect. Her memory and hearing are quite right. She never suffers from pain of any kind, there are no starts or jerks or muscular tremor. Urinary organs and secretion normal. She has a lateral curvature of the spine with some flattening of the ribs on the right side in the middle of the dorsal region. The distortion, which is considerable behind, does not alter the shape of the chest in front. There is no cutaneous anæsthesia, the neighborhood of the joints is naturally sensitive. No numbness or formication in ordinary position, but if she sits up in bed with the knees drawn up before her, and a weight is kept on her knees, there is a feeling of numbness and deadened sensibility in the lower limbs, but there is no marked reflex action, and no effect follows upon irritating the soles of the feet. She is able to localize sensations excited by the use of a pair of compasses in a normal manner, though the tactile sensibility of the lower extremities is, if anything, rather lessened. She is the second of eight children; her parents are healthy. At twelve, her shoulder was said to have "grown out." Dr. Little ordered a supine position, with no mental work, and daily muscular exercise. Iron supports were used for four years. The catamenia appeared at fourteen. At eighteen, the supports and treatment were omitted. Her general health was good, but the unsteadiness of gait continued, and as she developed into a young woman increased. She was placed under the care of a leading physician six years ago, kept perfectly recumbent fourteen months, and treated with steel without benefit. She came under Dr. Carpenter's care in 1868.

The condition of the younger sister, E. H., æt. 26, is very similar, but the symptoms are not so advanced, neither is she so helpless as her sister was three years ago; she has followed similar plans. The irregular gait was observed when she was fourteen. She is now well developed, with a healthy, rosy face. When she speaks, it is with hesitation, and as if she had something in her mouth. She is able to thread her needle, but could not touch the tip of her nose if her eyes were shut. She walks more nervously than her sister, and her progression is more sudden, amounting to a half-run. Dr. Carpenter summed up the points upon which he asked the opinion of the Fellows, under four heads, viz.: (1) The cause for the development of the disease; (2) its nature; (3) its pathology; (4) its treatment. He referred the first point to some hereditary defect in nutrition of nerve matter; that the curvatures were coincident in point of time with development of disease as effects of a common cause, viz., degeneration of nerve matter—that they were not cases of locomotor ataxy at present. He combatted the opinion of the translator of Trousseau's "Clinical Medicine" that the pathognomic sign of locomotor ataxy "was the peculiar deficiency in the power of coördinating voluntary movements," basing his objection on the absence of pain, of urinary disturbance or ocular complication, as well as the fact implied by their youth and sex, the want of coördinating power being the most prominent symptom. He considered that in these cases the mischief was limited to the cord, and that there was no cerebellar complication, this idea being supported by the absence of subjective symptoms of brain disturbance and the superior intellectual power. He referred to the experiments of Linget and Bernard, which prove that when the posterior roots of the spinal marrow are divided there is less coördinatory power, and that the harmony of movement is interfered with, and that Dr. Lockhart Clarke had distinctly made out that the posterior roots of the spinal cord were diseased in locomotor ataxy. The author concluded that in these cases where the posterior columns were diseased the irritability of the muscles was found to be depressed, whilst their sensitiveness to pain was increased, that electric currents excited violent pains. This was not the case with these patients; moderate galvanic currents were not distressing. The author also pointed out a typical case of locomotor ataxy, pointing out the different manner of progression as compared with the gait of these young ladies.

A discussion then took place, in which Dr. Lockhart Clarke and Dr. Richardson joined, at the conclusion of which

The President proposed that a committee be formed to examine these cases and report to the Society at the next meeting. He named Drs. Richardson, Hughlings Jackson and Carpenter, and requested the assistance of Dr. Lockhart Clarke.

The discussion was then adjourned, the President thanking Dr. Carpenter for his interesting communication, and also the young ladies for the opportunity they had afforded the Society of seeing them.—*Med. Press and Circular.*

The Liebig Extract of Meat Company slaughtered 88,869 head of cattle last year.

Medical and Surgical Journal.

Boston: Thursday, January 11, 1872.

ANNUAL REPORT OF THE SURGEON GENERAL OF THE UNITED STATES ARMY.

We find on our table the customary annual document from the Surgeon General's office in Washington, which includes the general transactions of the Medical Department of the Army for the year ending June 3d, 1871. The Report presents some data which are of interest to the Profession, and therefore we copy them.

The monthly reports for the sick and wounded for the year include 63,507 cases in a mean strength of 29,365 white, and 2600 colored troops—about two entries on the sick report for each man. The total number of deaths reported was 519, or 17 per 1000 of mean strength; of these, 362 died of disease, and 156 of wounds, accidents and injuries. The proportion of deaths from all causes to cases treated was one death to 122 cases. The number of discharges on Surgeon's Certificate of Disability was 71, being at the rate of 27 per 1,000 of mean strength.

Much labor has necessarily been expended in supplying information from the files of the Record and Pension Division. These inquiries refer chiefly to the cause of death or discharge from service, and the hospital history of soldiers dead or disabled during the war of the rebellion. The books of the closed general hospitals and other records on file give the information sought in the majority of instances; but a tedious search is often required, particularly where the inquiry refers to the personal history of a soldier who has been transferred from hospital to hospital during the progress of his treatment. As these inquiries are made for the settlement of pensions or other claims, the utmost accuracy is required in each case to protect the interests of the Government, as well as to do justice to the applicant.

Concerning other topics the report thus continues:—"There were entered on the registers the histories of 5,210 surgical cases of the late war, making a total of 235,398 now recorded; also, additional information respecting 9,661 cases already recorded, and prepared for revision abstracts of 8,947 cases which were not placed on the permanent registers. The hospital record of 22,756 men was searched; 16,008 names were indexed. The Pension Medical Examiners' reports of the condition, at the latest dates, of mutilated men, were transcribed in 2,564 instances. Histories of surgical cases were furnished to other departments of the Government in 65 instances.

"The Army Medical Museum continues to increase in the number and variety of specimens and its consequent usefulness. The number of specimens added during the year was 1,516, a present total of 15,018.

"The number of visitors was over 15,000 during the year.

"Part First of the Medical and Surgical History of the War is near completion, and will be laid before Congress during its coming session, when it is hoped sufficient appropriation will be made to continue the publication of the remaining parts."

Fifty-four vacancies now exist in the medical corps. The number of military posts requiring medical attendance were, on July 1, 1871, 206, at many of which the number of troops was so large, or the nature of the duties so onerous, that the services of two medical officers were constantly required at them. If the restrictions as to promotions and appointments in the medical corps were removed at once it would require several years through the prescribed modes of annual examination to restore it to the standard number allowed by existing laws, and the reduction of that number by stoppage of promotion and appointments has proven to be prejudicial to the interests of the service both in a sanitary and economical view.

Treatment of Typhoid Fever.—Drs. G. McDonald and B. G. McPhail report, in the *Virginia Clinical Record*, the occurrence of fifty cases of typhoid fever among the workmen at the Great Bend Tunnel in West Virginia. Suitable nourishment and good nurses were not to be obtained, and the patients were fed mostly on sweet milk and beef or chicken soup, the first of which was the most acceptable, and sometimes two or three pints were used in a day. But the remedy most relied on was the hydrochloric acid, through the whole course of the disease, usually in doses of 30 drops of the *dilute* acid in half a glass of sweetened water every two or three hours day and night. Often the acid alone was given. If the bowels were moved too often, astringents were given, and if insomnia existed, an opiate was ordered. In some cases of prostration quinine or small doses of whiskey were required ; tonics were given during convalescence. The results were—of 32 cases of whites, none were fatal. Another whose treatment began the third week, died. The remaining 18 were negroes ; and of these 3 died during the course of the disease, and 1 nearly two months after the fever had subsided. Another case had a relapse, after travelling several hundred miles, which ended fatally. Of the 50 cases, 48 were youths and young men, mostly under 25, and 2 were girls. The average duration of the fever was about three weeks.

UNPAID MEDICAL SERVICES.

The resolution adopted by the physicians of St. Albans, Vt., which appeared in the Journal of October 26th, seems to me just and wise. As I understand it, their aim is, not to abridge their sympathies for suffering humanity, but to protect themselves against those unprincipled persons, so annoying to the profession, who can pay, but *will not.*

But the question arises whether the regulation is practicable at all times. No, emergencies may occur when it ought not to be regarded. Suppose, for instance, a bad man of competent means, whom I knew to be indebted to his former physician, having met with an injury, and bleeding profusely, should send for me at midnight to visit him immediately. What says duty? In cases of imminent danger, heed no rule or by-law ; go to him forthwith, and save his life ; we are to be kind and merciful to the unprincipled and unfaithful. Here, then, would be an exception to the rule. But because a rule is sometimes inapplicable, does it follow that it is not good? By no means.

I was once present at a large meeting of a medical society, where the ground was taken by eminent members, *nemine contradecente,* that in cases of immediate peril, such as flooding, if an irregular attendant should request us to come to his assistance, we are to heed the call, and do all in our power to rescue his patient. Such an exception, however, in no way invalidates the wisdom of the by-law in reference to such practitioners.

Let us further consider the supposed case of the wounded man. After the immediate danger is over, am I to continue to attend him? No. Not until he makes restitution to the physician he has wronged. I ought to tell the patient, or his friends, with all candor and good will, that I do not desire to take the place of his former attendant, and that I must decline further service, at least until he is paid.

By so doing, a professional brother *might* be righted. Certainly, I should have the satisfaction of knowing that I had acted an honorable part towards him. Besides, it is better for the patient himself that I should take such a course. For if I should say nothing, and continue to attend him, he would be likely to persist in his swindling ; and it is no kindness to a bad man to practically encourage him in wrong-doing. If no obstacle is put in the way of a thief, he will continue to steal ; and what better than a thief is he that does not pay his debts? Moreover, the dignity of the profession would rise in the estimation of the people ; for the more we respect each other's rights, the more the public will respect us.

Such a course is not making a trade of our profession. We only seek that justice may be done us, and swindling rebuked. Benevolence, justice, truth and science are far higher considerations than wealth, with every physician of well-regulated heart and mind. But is it, therefore, reasonable to think that he should render his services gratuitously to those who are able to compensate him? It is gratifying to learn that the rule at St. Albans has worked well. It has proved *fees-able* and promotive of justice.

Jus.

One way to meet the Difficulty.—*Messrs. Editors:*—Having noticed the discussion in recent numbers of the Journal upon "unpaid medical services," with your permission I will suggest a method of meeting similar difficulties, which has been of service to members of the profession in New York.

Considerable assistance has been derived in that city from the use of a private or protective list, which enables medical gentlemen to discriminate between reliable and unreliable persons in the matter of credit. The first number of this manual was issued about a year ago. It contained the names of 400 men and women, who are apparently *able* but *unwilling* to pay for medical advice and attendance. Since the first publication these names have been increased in number more than *ten fold*, the field having been enlarged so as to include the neighboring cities of Brooklyn, Jersey City, and Newark. The proprietor has also visited the city of Philadelphia, conferring with some fifty physicians in regular practice and of high standing who were so much interested in his plan that he proposes to extend his labors to that city with the least possible delay.

The advantages of such a work are twofold:

1st, It induces *some* of the better class of delinquents to pay their dues, and thereby secure the erasure of their names from its pages.

2d, It enables a physician to avoid wasting his time upon strangers, who come to him recommended, *if at all*, by those who know them only in a *social* way.

If any gentleman questions whether participating in such a work is in strict accordance with "medical ethics," it may be said in reply that it is equally so with the custom of physicians in England, who ask for the fee *in advance;* for the laws of that country, till a recent period at least, did not permit a suit for medical services. It may also be said in reply that the *physician*, in any large town or city, where abundant provision is made for the *poor*, has the same right to elect who shall be *his patrons*, as the *patron*, who seldom or never acts unadvisedly, to elect who shall be *his physician*.

Is not a physician laid under more solemn and weighty obligations to himself and his family than to that large class of chance patients who are *most* exacting in their demands for medical aid, and *least* willing to pay for it?

No physician is *absolutely bound* to abstain from attendance on any person whose name appears on the list.

It is desirable in any town or city to limit the work to the co-operation of judicious and conscientious gentlemen, willing on the one hand to consider any possible mitigating circumstances of a given case, and on the other to show a proper regard for their obligations to their professional brethren.

The proprietor does not know of a single case of hardship arising from the use of his pamphlet, while he does know that many gentlemen whose names are an honor to the profession would be *very sorry* to part with it.

Advice has been taken of one of the most eminent lawyers in the State, and all the requisite safe-guards have from the outset been thrown around the details of the work. It remains with the medical profession of this city and State to determine whether they will avail themselves of the advantages of this agency. B. P. S.

Boston, January 6, 1872.

THOSE WHO WISELY AND HONESTLY ADMINISTER MEDICINE.—We clip from the *New England Medical Gazette* for September, the report of a case before the Boston Academy of Homœopathic Medicine. It needs no comment at our hands, and we spare the persons interested the criticisms which certain medical men have "wickedly" made.

Dr. Gregg reported the following case of gastrotomy, performed by Dr. Helmuth, of New York, assisted by Dr. Talbot, of this city.

Miss B., aged 19, of nervous-sanguine temperament, generally healthy, complained, in November last, of pain in the bowels —location not clearly defined—followed by obstinate constipation, lasting some ten days. Homœopathic medicine afforded relief, and she seemed again as well as ever.

On February 2d, she was again attacked with pain, with entire cessation of the fæcal discharge. The pain yielded to homœopathic treatment; there was little or no inflammation about the abdomen, no pain or tenderness on pressure, occasionally borborygmus, with eructations, and slight bilious vomiting. She was unable to take food; the stomach rejected it at once. Dr. Gregg diagnosed stricture of the large intestine. The chief seat of tenderness was in the ileo-cœcal region, and it seemed probable that the valve was the point of obstruction. Distention of the bowel with both air and water was tried, but in vain. A tube, twenty-two inches long, was then inserted this entire distance, and copious injections made, but they failed entirely to relieve the stricture. Dr. Talbot saw her in consultation, and was also convinced that the case would terminate fatally unless possibly it might be relieved by surgical interference.

March 23.—Dr. Helmuth performed the operation of gastrotomy. The family, aware of the danger of the operation, and yet hoping that it might afford a last chance, desired its performance. The patient being fully etherized, an incision was made extending from the umbilicus to the symphysis pubis, supposing the obstruction might be at the point previously named. Finding no obstruction there, the incision was carried still higher, and on exploration at a point where the transverse colon turns to make the descending colon, was found a firm, dense stricture, about an inch in length; at which place the bowel was contracted to about half an inch in diameter. A slight incision was made into the intestine, but so complete was the obstruction that it was impossible to pass a probe through the stricture. An incision was made through the constricted part, extending from the intestine below to the cavity above the stricture. The two sides were brought together and carefully united with silver sutures. A large amount of fæces was carefully removed, the parts, with no little difficulty, were all returned to their place, and the wound closed with silver sutures. So extensive and fearful an amount of exposure presented no hope, even in the operation. The patient, however, lived some eight hours, but died from collapse.

The case, though apparently past human aid, exhibited in a remarkable degree the favorable effects of homœopathic medicine, in relieving pain in cases of intestinal obstruction.

Ether as a Beverage.— Within a short time the habit of using ether as a means of intoxication has attracted considerable attention in England, not in isolated cases alone, but among a large class of the community. The statements of Mr. Draper do not leave any doubt in regard to this custom; they establish the fact positively that ether, with the inhabitants of the south of Ireland, fills a place similar to that of opium with the Chinese, absinth with the French, and gin with the English. The counties of Antrim, Londonderry and Tyrone, and the towns Draperstown and Magharei Omayh are those where the use of ether as a beverage appears to be the most extensive.

Although in the works on therapeutics and toxicology, cases are mentioned where ether has been used as a nervous stimulant, they are seldom met with. Pereira, it is true, speaks of a chemist, Briquet, who took as much as a pint of the liquid; he speaks also of a young man who took daily as much as two ounces. Rouelle had reached an amount as large as a litre (more than two pints), daily. But in these cases the ether had been used as a sedative, and with the object of relieving intolerable suffering. Taylor is the first to mention a case where this article had been used as a stimulant. Among the English a belief exists, either justly or the contrary, that females belonging to the higher grades of society employ ether constantly as a stimulant. But, without doubt, the practice of employing ether in this way does not date back very far, probably not more than five or six years.

Ether, taken into the stomach in considerable doses, excites, in the course of time, an action analogous to that of alcohol, and gives rise to morbid disturbances, having the same characters and causing nearly identical symptoms. Yet, in certain respects, differences exist between the intoxication by ether and that by alcohol. In the intoxication by ether, 1st, the appearance of the morbid results is more speedy and appears to be due principally to the great accumulation of ether in the brain tissues. The numerous and continued investigations which have been made in connection with M. Belin, have clearly confirmed this fact. 2nd, the quantity of ether necessary to induce chronic intoxication is not so great as that requisite to produce alcoholism. 3rd, the commencement and progress of the effects are more rapid. 4th, the disappearance of the symptoms takes place more speedily when intoxication ceases.

The use of ether has increased to a wonderful extent in England during the past six years. At Omayh more than four thousand gallons have been used, and the practice is thought to be on the increase.—*L'Union Medicale.*

The Tolerance of Chloroform.—Dr. Edward R. Squibb, of Brooklyn, N. Y. *(New York Medical Journal)*, remarks that the greatest consumption of chloroform he ever met with was in a patient of Dr. Gustave Morelli, of New York city. This patient was the widow of an Italian physician; her age forty-eight, and her appearance healthy. She was subject to hereditary migratory gout, the sudden pain of which was so severe that she finally gave up all slower means of temporary alleviation for the prompt action of chloroform. Between the 31st of March and the 16th of December, 1865, a record was kept, and during this time, by Dr. Morelli's direction, she was supplied by Dr. Squibb with fifty-three pounds of purified chloroform. During her acute attacks she not infrequently used two pounds a day. —*Richmond and Louisville Med. Jour.*

Note relative to the Bromide of Calcium. By William A. Hammond, M.D. Bromide of calcium is a white crystaline substance, very soluble in water, and readily decomposing on exposure to the atmosphere for a few minutes. The aqueous solution is at first colorless, but it soon becomes tawny from a portion of the bromide being set free. Its taste is similar to that of the bromide of potassium, though somewhat more pungent and disagreeable.

The formula of bromide of calcium is Br. Ca., and its combining equivalent is 98 (Br. 78, Ca. 20 = 98); 100 grains, therefore, contain about 79.5 grains of bromide.

Desiring to test the therapeutical value of this compound, I desired Dr. Neergaard to procure it. During the last few months I have used it in a number of cases in which the bromides were indicated, and have become satisfied of its great efficiency as a medicinal agent.

The dose is from fifteen to thirty grains or more for an adult. It is especially useful in those cases in which speedy action is desirable, as, owing to its instability, the bromide is readily set free, and its peculiar action on the organism obtained more promptly than when either of the other bromides is administered. Chief among these effects is its hypnotic influence, and hence the bromide of calcium is particularly beneficial in cases of delirium tremens, or in the insomnia resulting from intense mental labor or excitement.

Thus, I gave a gentleman, who, owing to business anxieties, had not slept for several nights, and who was in a state of great excitement, a single dose of thirty grains. He soon fell into a sound sleep, which lasted for seven hours. The next night, as he was wakeful, I gave him a like dose of bromide of potassium, but it was without effect, and he remained awake the whole night. The subsequent night he was indisposed to sleep as he ever had been, but a dose of thirty grains of bromide of calcium gave him eight hours sound sleep, and he awoke refreshed and with all unpleasant cerebral symptoms—pain, vertigo, and confusion of ideas—entirely gone.

In a number of other instances a single dose has sufficed to induce sleep, a result which very rarely follows the administration of one dose of any of the other bromides.

In some exhausted conditions of the nervous system attended with great irritability, such as are frequently met with in hysterical women, and which are indicated by headache, vertigo, insomnia, and a mental condition of extreme excitement, bromide of calcium has proved in my hands of decided service. Combined with the syrup of the lacto-phosphate of lime, it scarcely leaves any thing to be desired. An eligible formula is—℞. Calcii bromidi ℥i; syrup. lact. phos. cal. ℥iv. M. ft. sol. Dose, a teaspoonful three times a day in a little water.

In epilepsy I have thus far seen no reason for preferring it to the bromide of potassium or sodium, except in those cases in which the paroxysms are very frequent, or in cases occurring in very young infants; of these latter, several, which had previously resisted the bromide of potassium, have yielded to the bromide of calcium. It does not appear to cause acne to any thing like the extent of the bromide of potassium or of sodium.

Determination of Sugar in Urine.—In a paper read by Professor Seegen before the Medical Society of Vienna, he dwelt upon the contradictory results of existing methods of analysis, especially in regard to the presence of sugar in many physiological conditions, as, for instance, during pregnancy, and during the period of suckling, after inhalation of chloroform and ether, &c. The result of his trials of all existing methods showed that we have no reagent to prove minute traces of sugar dissolved in urine beyond doubt, and to the exclusion of all other analogous substances.

All statements as to the presence of minute quantities of sugar in many physiological and pathological conditions, must be received with caution. Normal urine does not contain it in sufficiently large quantities to allow of its determination.

Normal urine contains minute quantities of reducing substances, but whether they consist of sugar, partially or wholly, cannot be determined by our known tests.

He mentioned as a new reagent for albuminous urine the following:—

The precipitate obtained by heating urine with nitric acid is carefully washed, to remove the least traces of urine, and is then redissolved with a little potash; a few drops of Fehling's copper solution is then added; a fine violet coloration is instantly produced, especially with a strong solution; the reaction is very characteristic, and readily shows one per cent. of albumen.—*N. Y. Medical Record.*

Miss Susan Dimock, a young American lady, has just graduated at Zurich.

Vaccination During Uterine Life. — *L'Abeille Medicale*, of September 18th, reports the case of a lady who was vaccinated at the sixth month of pregnancy. The vaccination succeeded, and at the end of some days she had two perfectly characterized vaccine pustules. The smallpox prevailing in the neighborhood at the time of the birth of the child (a girl), she was vaccinated at the age of fifteen days with fresh matter which had succeeded with other children, but which produced no pustule, neither the slightest redness or local irritation. A month later she was again vaccinated without success, although the matter used was taken from the arm of a child who had three magnificent pustules on each arm. Again at four months and a half the third vaccination was performed with virus, which produced perfect pustules with other children, but without the slightest result. The reporter considers that the child was protected from the virus by having undergone vaccination while in the maternal womb.—*Virg. Clin. Record.*

Embolism of the Left Vertebral Artery: Paralysis of the Glosso-Pharyngeal Nerve: Death from Starvation.—T. C., aged 68, a laborer, of full habit and florid complexion, met with an accident two months before his death, falling from a load across the back of a horse on his sternum. There was severe concussion of the chest, with considerable dyspnœa, but no ribs were broken. A few days afterwards, he complained of great pain over the left side of the occiput, extending down the neck; this gradually ceased, and he recovered so as to be able to walk about.

On October 14th he had a violent fit of sickness, and in the course of the day found he had entirely lost the power of deglutition. He complained of numbness in the right arm and leg, but had perfect motion. The pupil of the right eye was dilated, but sensible to light. He expressed himself as feeling quite well, only very hungry. He made the most determined attempts to swallow, but the fluid always returned by the nose. An open blister was made at the back of the neck and dressed with strychnia till tetanic twitchings were produced, and beef-tea enemata were given freely. He sank from exhaustion on October 26th. On removing the brain at the necropsy, that organ was found perfectly healthy, with the exception of the left vertebral artery, which was entirely filled up with an embolic clot. —*Brit. Med. Journal.*

Dr. Thomas W. Evans.—Among the promotions in the Legion of Honor included in the degree published in the *Journal officiel* on Tuesday last, is that of our countryman, Dr. Thomas W. Evans, to the rank of commander. The doctor has been long a member of the order, having been named Chevalier in July, 1853, and Officer in January, 1866. If we do not mistake he is the first foreigner who has obtained the rank of Commander. By the terms of the degree he received his promotion for services rendered as "Director of the American Ambulance," but it might also have been added as its founder. We are glad for two reasons that the Republican Government of France has conferred this distinction on Dr. Evans, first because it has been merited by hard service and large pecuniary sacrifices, and secondly because it is a complete answer to the calumny that he is an Imperialist in his political tendencies. The Doctor has shown his gratitude to the country which has given him a hospitable reception, by abstaining from all interference in its political affairs.

His course in regard to the Empress, when in her misfortunes she threw herself on his protection, was that of a gallant gentleman and nothing more, and the Government of M. Thiers fully recognizes the fact by conferring upon him a distinction, which, though unsought for, has been earned by zealous and substantial service to France. —*American Journal of Dental Science.*

Paracentesis Thoracis.—In St. George's Hospital Reports for 1870, Dr. Henry W. Fuller speaks of paracentesis of the chest in an admirably practical way, and summarizes his advice as follows:—

"1. Tap whenever dyspnœa is very urgent, or as soon as it becomes evident that remedies fail to produce absorption of the fluid in the chest; 2. Tap as low down as possible, and make a free opening, allowing the chest to empty itself thoroughly; 3. So far as possible, avoid causing any local irritation; 4. If the fluid withdrawn is serous or sero-sanguineous, close the opening with carbolic plaster as soon as the operation is concluded; if, on the contrary, the fluid is purulent, adopt some means to prevent the wound from closing, and take care that the matter is allowed to drain off as fast as it is formed; 5. After the operation, support the patient by bark and good nourishment, and for a day or two give him opium if necessary."—*American Practitioner.*

Medical Miscellany.

Climate of Alaska.—From the Meteorological Register Table of Surg. W. H. Ensigne, kept at Sitka, in Alaska, in 1870, we copy the following observation of the mean temperature there for six days in May—taken at the hours of 7, A.M., 2, P.M., and 9, P.M. of each day:—May 21st—55, 64, 50 degrees; 22d—43, 52, 47; 23d—45, 55, 40; 24th—43, 49, 41; 25th—49, 40, 46; 26th—47, 54, 50. From this it appears that the weather in May, in that northern region, is not marked by the severity of temperature which is apt to be associated with the place.

The New York *Medical Record* of Jan. 2 says that smallpox still continues in that city, with no signs of decreasing. "The same," it adds, "may be said of Brooklyn and Philadelphia, in which latter city the disease prevails to an alarming extent."

In the noble old church at Berkeley, in Gloucestershire, England, where Jenner lived and died, it is proposed to erect a window to his memory. The sum of £500 is asked for the purpose, and the committee list is headed with the names of three earls.

The Transmission of Virus through the Atmosphere.—M. Chaveau has been engaged for a lengthened period on a series of experiments for the purpose of ascertaining the mode of transmission of infecting germs. He collected the virulent matter in a cup which, having placed it on a plate of glass and covered it with a glass bell, he submitted to a temperature of 40° centigrade, cooling the outside of the bell by cotton on which ether was dropped. Having collected the distillate, he inoculated side by side with it, and with the virulent matter from which it arose. The virus of smallpox was the subject of most of his experiments. As a result of these investigations, he has established the fact that the inoculable matter escapes with the distillate, inasmuch as inoculation with it always succeeded. Lastly, he repeated the experiment twice with the virus of epizoötic typhus, which more subtilly than any other infection, dissipates itself through the atmosphere.—*Med. Press and Circular.*

Medical School in Syria.—At Beiruth there is a flourishing Medical School conducted by Missionaries, principally under the care of Rev. Dr. Bliss, and Dr. Post, son of a celebrated physician of New York. Dr. Post is a dark-eyed, spare man of bilious temperament; works hard; lectures to a class of intelligent Arabs, who answered questions readily, seemed to take a deep interest in the subjects considered, and apparently possessed quick, active minds. We attended his lecture in Arabic and clinic, and saw a case of diseased elbow-joint with sinuses, upon which he performed the operation of resection.

He has obtained a thorough knowledge of the botany of Palestine and Syria, and has collected from 8,000 to 10,000 specimens, beautifully arranged on cards, many of the most remarkable flowering plants of which are sold in America to raise money for missionary work. He is of the opinion that what, in our version of Scriptures, is called the Rose of Sharon, is not a rose, but a species of squill, the scilla maritima.—Dr. J. C. Weston, in *Maine Medical Assoc. Transactions.*

Books Received.—A Practical Treatise of Bright's Disease of the Kidneys. By T. Grainger Stewart, M.D., F.R.S.E., &c. Second Edition. New York: Wm. Wood & Co. 1871. Pp. 334. (From A. Williams & Co.)—A Handbook of Therapeutics. By Sydney Ringer, M.D., Professor of Therapeutics in University College, London. New York: Wm. Wood & Co. 1871. Pp. 483. (From A. Williams & Co.)

Pamphlets.—Transactions of the Medical Society of the State of West Virginia. Pp. 312.—The Physician's Manual for 1872. A complete Calendar for the City and Country Practitioner. S. W. Butler, M.D., Philadelphia. Pp. 84.—Sixteenth Annual Report of the Trustees of the State Lunatic Hospital at Northampton. October, 1871. Pp. 56.—Transactions of the Medical Society of New Jersey. 1871. Pp. 334.—Transactions of the Maine Medical Association. 1871. Pp. 202.

Married.—4th inst., at the Church of the Advent, by Rev. Charles Grafton, assisted by Rev. O. T. Prescott, B. Joy Jeffries, M.D., to Marian, eldest daughter of Charles F. Shimmin, Esq.

Died.—At Providence, R. I., on Jan. 4th, Samuel St. John Smith, M.D., in the 35th year of his age.—Recently in practice in Perth Amboy, N. J.

Deaths in sixteen Cities and Towns of Massachusetts for the week ending Jan. 6, 1872.

Cities and Towns.	*No. of Deaths.*
Boston	110
Charlestown	8
Worcester	30
Lowell	16
Milford	6
Cambridge	23
Salem	12
Lawrence	10
Springfield	7
Lynn	12
Fitchburg	2
Taunton	3
Newburyport	3
Somerville	5
Fall River	22
Haverhill	4
	273

Prevalent Diseases.	
Consumption	47
Pneumonia	39
Scarlet fever	16
Croup and Diphtheria	9

Boston reports one death from smallpox. Of the deaths from scarlet fever, eight were in Worcester.

George Derby, M.D.,
Secretary of State Board of Health.

Deaths in Boston for the week ending Saturday, Jan. 6th, 110. Males, 59; females, 51. Accident, 4—apoplexy, 1—bronchitis, 4—congestion of the brain, 1—disease of the brain, 2—inflammation of the bowels, 1—disease of the bowels, 1—cancer, 2—cholera infantum, 1—cyanosis, 1—consumption, 16—convulsions. 2—debility, 2—diarrhœa, 4—dropsy, 1—dropsy of brain, 1 dysentery, 1—erysipelas, 2—scarlet fever, 1—typhoid fever, 2—gangrene, 1—disease of heart, 10—hæmorrhage, 1—infantile, 1—insanity, 1—intemperance, 1—disease of the kidneys, 3—congestion of the lungs, 3—inflammation of the lungs, 16—marasmus, 5—old age, 5—paralysis, 1—premature birth, 2—peritonitis, 1—puerperal disease, 2—scrofula, 1—smallpox, 1—disease of the spine, 1—whooping cough, 1—unknown, 3.

Under 5 years of age, 40—between 5 and 20 years, 8—between 20 and 40 years, 24—between 40 and 60 years, 19—above 60 years, 19. Born in the United States, 72—Ireland, 29—other places, 9.

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POISONING BY NITRO-BENZOLE.

By Clifton E. Wing, House Physician, Boston City Hospital.

M. P., æt. 26, single, longshoreman, was at work in the hold of a vessel, May 20th, when, shortly after 7 o'clock, A.M., a package of nitro-benzole sent up in the sling fell and burst, its contents being scattered about the hold, and a considerable quantity falling over his frock and shirt. As he stated, it "smelled fearful strong," but "didn't choke at all." Some of his fellow-workmen were obliged to leave the hold and go above for fresh air; but he, with some others, continued to work in the same place, although only one other remained as long as he.

The patient did not feel at all sick until after returning from his house at noon; but it was remarked that he looked "pale and blue" as early as 11 o'clock. He continued to work until nearly 3 o'clock, his companions several times telling him that he was looking very badly, when, growing sicker and "feeling heavy and dizzy in his head," he went to a liquor store near at hand for a glass of brandy, which was vomited soon after being taken. He then started out to find a doctor, but, growing worse, was finally helped home to his boarding place, having to sit down and rest several times on the way. Patient knew nothing more until he found himself at the hospital.

The barkeeper of whom he obtained the drink of brandy stated of him that "he had seen many dead men, but never one who looked as badly as he. He looked as though there was not a drop of blood in his body, and the color of his face was like that of one's hands when held before a green dress." He also noticed "a peculiar smell about him," and that he seemed very weak.

Soon after he arrived at his house, he was seen by Dr. McDonald, of this city, to whose kindness I am indebted for an account of his condition at that time. He found him "in a semi-comatose condition, roused with difficulty, answering questions incoherently, very livid all over, extremities cold, pulse slow and full, breathing difficult but not stertorous, and whole body bathed in perspiration." The clothing about him and vomited matter emitted a strong smell of bitter almonds. On being "shaken up," his pulse improved, and breathing became somewhat less laborious. He was ordered an emetic, to be followed by brandy and ammonia (though whether he received anything from his stupid and indifferent friends is doubtful), and directed to be taken to the City Hospital, where he was brought about 5 o'clock, P.M. The only history to be obtained from those bringing him was, that "he had breathed fumes from a broken package early in the morning," as above.

When first seen, he was lying in the accident room of the hospital, with marked pallor of the face, and at the same time a noticeable and peculiar blueness of the prolabia and of the fingers and fingernails. His breath and clothing emitted a peculiar odor, which seemed familiar, and it occurred to me that it was the same with that constantly pervading the clothes of a friend who was engaged in an aniline manufactory. A short hunt through the books enabled me to fix upon nitro-benzole as the probable poisonous agent, and this it afterwards proved to be.

He had received half an ounce of brandy from the ward-master on his entrance.

On loud questioning patient roused somewhat, appeared perfectly rational, and stated that he "had swallowed nothing, only breathed the fumes." Pulse was 100, feeble, and respiration slow and very feeble. Pupils dilated, and not responding to light. Artificial respiration was attempted, without much result, and patient was ordered carb. ammonia and placed in a hot bath, at the same time receiving a cold douche upon the head. When taken out, he was vigorously rubbed with coarse towels from head to foot. At this time he vomited twice a portion of the brandy taken on entrance. Pulse now 120, of good strength. Respiration 28, quite strong, and countenance more natural. After a while his symptoms grew worse. Bath was repeated, and afterwards the patient was wrapped in blankets and stimulated freely with brandy and carb. ammonia by enemata, the stomach rejecting stimulants taken by the mouth.

At 7.30, P.M., pulse 112, and again very feeble. Resp. 18, and very irregular, a long, slow breath being followed by several shorter and quicker, and the patient could barely be roused by repeated hard slaps with wetted towel on chest and face, muttering to be "let alone," and again relapsing into an unconscious state.

8.20, P.M.—Pulse and respiration the same, but patient more easily roused.

10.30, P.M.—Pulse 104, resp. 22, still irregular, but patient easily roused, perfectly rational, and able to relate the circumstance of his attack. Right pupil responding to light, but left still immovably dilated.

Next morning.—Pulse 78, resp. 22. Pupils normal. Patient still pale and bluish, but states that he is "all right." Soon after, he left the hospital, returning a few days afterwards to report himself. "Still a little dizzy and not quite himself," but expecting to go to work in a day or two. Bluish color about the mouth still noticeable. Since that time nothing has been heard from him, and doubtless his recovery was perfect.

The ward which he occupied was strongly scented for several days after he left with the peculiar odor of nitro-benzole.

The man who worked by his side in the hold showed no symptoms of poisoning, although he worked in the same place and for the same length of time, and also had some of the liquid spilt upon his clothing.

Three other men worked for about two hours in the hold, at the time; upon two no effect was produced, except that of a local irritant where the liquid fell upon the skin; the third man felt dizzy, and it was noticed that he was "pale and blue."

In an essay "On the Physiological Properties of Nitro-benzole and Aniline" (*London Hospital Reports*, Vol. 2), Mr. Letheby writes as follows :—

"It is on record that Thrasyas, the father botany, was so skilled in the preparation drugs that he knew how to compound a poison which would remain for days in the living body without manifesting its action, and would at last kill by a lingering illness. * * * * * Modern toxicologists have long since discarded these notions, and have set them down to the vague fears and exaggerated fancies of the ancients rather than to the sober contemplation of fact; but the account which I am about to give of the physiological properties of nitro-benzole will show that there is one substance at least, which realizes, to a great degree, the extraordinary opinions of the ancients. The compound may be given to-day, and yet, if the dose be not too large, it shall not manifest its action until to-morrow or the day after, and then shall destroy life by a lingering illness, which shall not only defy the skill of the physician, but shall also baffle the researches of the medical jurist. These facts are so remarkable that they would be hardly credited if they were not susceptible of the proof of demonstration. They are likewise the more interesting and important from the circumstance that nitro-benzole is now a common article of commerce and is accessible to everyone."

According to our author, the narcotic effect of nitro-benzole and aniline are frequently noticed among workmen in establishments where they are manufactured; but usually the symptoms are not serious, and are readily dispelled by fresh air or a mild stimulant. He records, however, several fatal cases by nitro-benzole, viz. :—

A man, æt. 43, spilled a quantity of the liquid over the front of his clothes, and went about for several hours in an atmosphere saturated with the poison. In another case, a boy, æt. 17, received a little of the liquid into his mouth while sucking at a syphon.

The effects were nearly the same in both cases, notwithstanding that in one the poison was inhaled and in the other it was swallowed. For some time there was no feeling of discomfort beyond that of drowsiness; gradually, however, the face became flushed, the expression stupid, and the gait unsteady. The sufferers had the appearance of persons who had been drinking. Little by little the stupor increased until it passed into profound coma, and in this condition they died. The progress of each case was much the same as that of slow intoxication, excepting that the mind was perfectly clear until the coming on of the fatal coma, which was sudden, and in which "the sufferer lay as in a deep sleep, and died without a struggle." The duration of each case was nearly the same; about four hours elapsed from the time of taking or inhaling the poison to the setting in of the coma, and the coma itself lasted four or five hours. At the *post mortem* there was found congestion of the brain, and the blood was "everywhere black and fluid. The liver was of a purple color. Analysis discovered the existence of nitro-benzole in the brain and stomach, and also of aniline."

In a third case, a clerk in a chemical manufactory, at about noon, applied a drop or two of nitro-benzole to his tongue to take away the odor of a pipe which he had been smoking, repeating the same an hour and a half afterwards, the latter time also swallowing a drop or two of the liquid. He felt prostrated after the first dose, and took an alcoholic stimulant, but an hour after the second dose was worse, and was seen by a physician, who found him excited, his face purplish and his lips and nails mauve colored. Skin cold. Resp. short and quick, with feeling of suffocation. Heart's action irregular. Pulse 130, weak and irregular. Complaining of oppression at chest and confusion in head. At half past three, he was seized with convulsions (emprosthotonos), repeated in twenty minutes, both convulsions quickly passing off, cold water being dashed over him. Soon after, a third convulsion occurred, leaving patient in a state of coma, in which he remained for six hours, consciousness then gradually returning after an enema of turpentine. Pulse remained weak, irregular and frequent. Patient complained of great thirst, and drank much strong coffee. He remained sensible to the last, finally dying by exhaustion, fifteen hours after the last dose of the poison.

On *post mortem*, there was found congestion of the brain and also of the spinal cord. The lips were still livid, but the mauve color of the nails had diminished since death. All cavities of the heart, coronary vein, venæ cavæ and pulmonary artery were fully distended with black, coagulated blood, and the lungs were much congested; abdominal organs normal.

In this case, the patient was certain that he had not swallowed more than three or four drops of the poison, and from the fact that the tube in which he had the liquid was found nearly full, he could not have taken more than eight or nine drops.

A servant boy, æt. 13, tasted some "artificial essence of bitter almonds" (nitro-benzole), which had been used to scent pomatum, but finding the taste unpleasant spat out, and "did his best to prevent any from being swallowed." The cook in the family also tasted, but did not swallow any. Soon after, both ate dinner.

In about an hour from the time of tasting the poison, the cook felt unwell, suffered from palpitation of the heart (being a subject of heart disease), vomited—the vomited matter smelling strongly of nitro-benzole—became insensible, and fell from her chair. She remained quite insensible several hours. Her face was puffed and of a leaden hue, and lips swollen and livid. Skin moderately warm. Pulse regular, but feeble. Patient recovered under alcoholic stimulant, "but there was a remarkable discoloration of the skin of the face and chest for many hours after."

The boy was not affected for six hours after, in the meantime having taken his mistress out to drive. He then vomited—vomited matter smelling of nitro-benzole—became drowsy, stupid, and at 8 o'clock was quite insensible. Face livid, lips almost black, teeth firmly clenched, pulse intermittent and feeble. Brandy was given freely, and patient seemed to rally for a while, but soon after relapsed, and died in complete coma, ten hours and a half after taking the poison. No examination *post mortem* was made.

These cases led Mr. Letheby to experiment upon animals, a brief *résumé* of which experiments is here given:—

"From 30 to 60 drops were given by the mouth to dogs and cats. There was rarely vomiting or other sign of gastric irritation. Two classes of effects were noticed—either rapid coma, or a slow occurrence of palsy and coma after a period of apparent inaction of the poison. Even in the *rapidly comatose* cases paralytic symptoms were noticed in the earlier stage. The time varied in *these* cases from twenty-five minutes to twelve hours between the exhibition of the poison and death.

"In the *slower* cases, there was no visible effect for hours and sometimes for days. Suddenly, however, the animal would be attacked with vomiting, followed by convulsions, which on their subsidence left more or less paralysis, first of the hinder and then of the fore limbs. After this, the animal generally lay for days more or less conscious, with now and then epileptic attacks, and at length died of exhaustion, or gradually recovered.

"The time from the exhibition of the poison to the first epileptic fit was from nineteen to seventy-two hours, in most cases about two days, and to the period of death was from four to nine days. This apparent inaction of the poison at first is very extraordinary, almost justifying a belief in cases of poisoning said to have occurred in ancient times."

Marked dilatation of the pupil was noticed in some of these cases. The *post-mortem* appearances were much the same as in the fatal cases in man reported by the same observer, and there was the same purple tint of the liver as found in the first two cases he reports. In the rapidly fatal cases, the odor of nitro-benzole was noticeable, and aniline was found in the organs. In some of the *slower* cases, the odor was gone, but in nearly all aniline was found in some parts of the body, though in a few instances no poison whatever was found. Mr. Letheby also made experiments upon animals with aniline, the effects of which were apparently identical with the *rapid effects* of nitro-benzole. Aniline was readily discernible in the tissues *post mortem.*

As a result of his experiments he draws the following conclusions:—

1st. That nitro-benzole, and aniline in its free state, are powerful narcotic poisons.

2d. That they excite but little action as local irritants on the stomach and bowels.

3d. That although the effects may be quick and the fatal termination of them rapid, yet nitro-benzole may remain in the system for a long time without manifesting its action.

4th. That the salts of aniline are not nearly as poisonous as the free alkali.

5th. That in rapid cases of fatal poisoning, both the poisons are readily discovered in the dead body.

6th. That in slow cases the poison may be entirely changed or eliminated, and therefore not recognizable.

7th. That both of the poisons appear to be changed in the body by the process of oxidation and reduction, nitro-benzole being changed into aniline, and aniline and its salts into mauve or magenta.

Dr. Alfred S. Taylor, under the heading "Cases and Observations in Medical Jurisprudence" (*Guy's Hosp. Reports*, 1864), refers to the experiments of Mr. Letheby upon animals, and also speaks of the odor of nitro-benzole being in one case plainly perceptible from the body of the animal fourteen days after death. He also refers to a paper by Mr. Nicholson, published in *The Lancet*, Oct. 1, 1862, in which the writer states that he has known several instances in which the vapor of nitro-benzole, as evolved from "*almond glycerine soap*" scented with it, has seriously affected females. A friend of his who used a cake of the soap in taking a warm bath, fainted from the effects of the vapor of nitro-benzole set free, and was ill for some time afterwards.

Mr. Taylor records the case of a woman who tasted nitro-benzole by mistake, but at once spat it from her mouth, though she continued to breathe the vapor of some spilled upon the floor. When seen, was pale and ghastly, "lips and nails purple, as if stained by blackberries," but the patient's mind was clear, and she described the nature of the accident, but afterwards lost her consciousness. Her teeth became set, the hands clenched and blue, the muscles rigid and convulsed. In about eleven hours there was reaction, and in seventeen the patient was much better, though she continued feeble for some weeks.

A person in the same room with the above suffered from inhaling the vapor from the liquid spilled on the floor.

Nitro-benzole, according to Mr. Taylor, is distinguished from all other liquids, except the essential oil of almonds, by its odor, and from the oil by the fact that strong sulphuric acid added to it produces no color, while with essential oil of almonds a rich crimson color, with a yellow border, is produced. He also states that, so far as cases have been observed in man in poisoning, either by the liquid or vapor, narcotic symptoms have appeared comparatively soon. Both Mr. Taylor and Mr. Letheby describe processes for detection of the poison *post mortem.*

The effects of aniline as such upon the system have frequently been noticed.

Mr. Letheby records a case of a boy who was brought to the London Hospital in 1861, having breathed fumes of aniline, and who was suddenly seized by dizziness and insensibility; he was brought to the hospital in that condition, with cold surface, feeble pulse and laborious breathing. After a while he rallied, and "it was then noticed that his face had a purple hue, and that the lips and lining membrane of the mouth, and the nails, had the same purple tint." The color remained next day, "patient looking like a patient in last stage of cholera," otherwise his symptoms had disappeared.

Another case is referred to in the *Pharmaceutical Journal,* vol. 4, p. 42, where a man spilled some aniline upon his clothes and breathed the vapor for several hours. When seen, several hours afterwards, "his body was of a leaden, livid hue; lips, gums, tongue and eyes, of corpse-like, bluish pallor, and breath gasping." He recovered with vigorous stimulation, though the peculiar color was noticeable for some time.

The same peculiar coloring of the features has been noticed at the London Hospital, in patients taking sulphate of aniline, given in cases of cholera, the color fading some time after a dose, and reappearing with the next.

Dr. Turnbull, of Liverpool, in a paper on Properties of Sulphate of Aniline, has also noted the remarkable effect it has on the color of the lips and skin. After reading the reported cases of poisoning by nitro-benzole, it seems strange that certain authorities should have asserted that it is not poisonous; and in view of what is now known of its properties, such assertions must go for naught. Certain it is, however, that the action varies considerably with the patient or is modified by unseen influences. In the case of the man mentioned in this article, the companion of the patient, although as near as could be learned under exactly the same conditions, had no symptoms whatever.

By an accident occurring in this city a few years ago, of which I was cognizant, two gentlemen were drenched with a mixture of aniline and nitro-benzole, and breathed the vapors for a considerable time afterwards, yet upon neither was any effect produced, except that one had a severe attack of conjunctivitis, the liquid having fallen in his eyes.

The subject has attracted considerable attention abroad, but, as far as I know, as yet, very little in this country, and no reported cases occurring this side of the water have fallen under my observation, though very likely there have been such. It certainly is interesting as exemplifying in a most striking manner the chemical changes constantly going on in the living organism, and is, moreover, important to the medical practitioner, from the fact that the state-ent made in England several years ago, that nitro-benzole is now a common article commerce, and accessible to everyone," is ue in America to-day.

Note.—Nitro-benzole (commonly known as essence or oil of Mirbane) is now largely employed by soap manufacturers, perfumers and confectioners, and is used to some extent in household kitchens as a substitute for oil of bitter almonds. It has been introduced into medicine, and is stated to be, when diluted with glycerine and applied locally, an efficient remedy for scabies.

It is formed by the action of nitric acid upon benzole (a product of the distillation of coal tar), and is an oily, yellowish, intensely sweet liquid, with an odor resembling—but not identical with—that of bitter almonds. Density, 1.209; boiling point, 415°; represented (old nomenclature) by the formula $C_{12}H_5O_4N$. It is largely used in the manufacture of aniline colors, being transformed by simple chemical processes, by the removal of oxygen and the addition of hydrogen, into aniline, $C_{12}H_7N$.

Aniline, treated in different ways with various oxidizing reagents, yields the dyes known as aniline colors. Their chemical composition has been investigated by Hoffman. They are understood to result from the oxidation of a portion of the hydrogen of the aniline, the color of the new compounds varying with the character and relative proportion of the oxidizing agent employed.

PROPOSED IMPROVEMENTS IN PRINTING AND WRITING.

By Abel Fletcher, Masillon, Ohio.

The frequency with which we meet persons afflicted with weak eyes and failing sight, naturally prompts the inquiry—What are the causes which produce such serious consequences? That these are numerous, no one, we presume, will deny. But we shall attempt no philosophical or physiological disquisition upon a subject concerning which we know so little. Our present purpose is to call attention to the injurious effects upon sight, resulting from the prevailing methods of printing and writing, with the view to suggest certain changes in those arts, which, if adopted, seem likely to lessen in a large degree the evils alluded to.

The education of the masses by means of our various institutions of learning is rapidly increasing the number of readers and writers. Literary and scientific men and women are becoming more numerous. Habits of thought and study are becoming more fixed and regular. As a consequence, the press runs night and day to supply the demand for books, newspapers and other periodicals, which are being multiplied at a rate hitherto unprecedented. Surely, these are hopeful signs for our young Republic. But, unfortunately, with the increase of knowledge, there comes also an increase in the number of weak and failing eyes. The trade in spectacles seems to be largely augmented: instead of being confined to the aged and infirm, multitudes, in the health and vigor of middle life, are compelled to resort to their use, and many at a much earlier period. May we not fairly attribute a very large percentage of weak and failing eyes to the daily habit of poring for hours over voluminous pages of fine print, on glaring white paper, by the dim light of a candle, or, still worse, by the dazzling flame of a lamp or gas, and not unfrequently without a shade to shut off the direct rays from the eyes? How many students in our various institutions of learning are, from this cause, annually compelled to abandon their studies, and retire from their classes, before completing their courses; thus physically disqualified for the very professions for which they had labored so long and arduously to prepare themselves, intellectually. How many book-keepers, lawyers, clergymen, literary men and others, are compelled, after gazing for a few years at the snow-white pages of their ledgers or manuscripts, to leave their professions, or resort to the use of spectacles, long before old age or other causes would have rendered them necessary.

Of course we have no statistics by which to render a definite or even approximate answer to these questions; but observation compels us to believe that the number thus afflicted is more numerous than is generally supposed. What, then, shall be done? Must we abandon all literary and intellectual pursuits which require the aid of books? Must all legal, mercantile and other business transactions be entrusted entirely to the memory? Must the press be abolished as an unsafe instrument for the transmission of knowledge? In short, must all give up reading and writing, or incur the risk of weak and painful eyes, impaired vision and, perhaps, total blindness? Certainly not. Human ingenuity, when once directed to the subject, is doubtless adequate to the discovery of a remedy. We lay no claim to superior knowledge on this subject, but during the last twelve years, the writer has passed through various stages of blindness, up to nearly total darkness. He has, therefore, had much leisure and opportunity for observation on this point, and has made some experiments, the results of which are strongly suggestive of improved methods of printing and writing, which, if found practicable, promise to lessen, to a large extent, the evils under consideration. Of course that little word *if* stands in our way. So it does in the path of all improvement and discovery. He who succeeds in removing opposing obstacles, and in rendering that practical which before was only problematical, is a benefactor of his race. To enable the reader to understand by what means we propose to diminish the evils referred to, and to form a clear idea of the reasons which induce us to believe in their practicability and efficacy, it will be necessary to call attention to certain facts and principles observable in nature, and to give the results of such experiments as we have been able to make.

Every one knows that when a strong light, like that of the sun, is allowed to fall on the retina or optic nerve, the effect is to dazzle or blind the eye; and if continued too long, or repeated too often, it is liable to result in permanent injury to the sight, if not total blindness. Hence, those accustomed to work by the intense light of a furnace or a forge are apt to suffer with impaired vision, in consequence of gazing at the metal while in a state of incandescence or white heat. Of course the injury, in all such cases, is in proportion to the intensity of the light, and the length and frequency of exposure.

The eye, like all other organs of the body, is impaired by excess. Nature has spared no possible means for protecting the eye against the injurious effects of too much light. She has placed the sun above our heads, and caused the eyebrows to project, so that the perpendicular or oblique rays can rarely fall on the pupil. In the morning and evening, when the sun is low, and its rays nearly horizontal, she draws a curtain of clouds and vapor along the horizon, which has the effect of smoked glass, to shut off the excess of light and to soften those beams which reach the eye, so as to render them comparatively harmless. Intervening objects, such as hills and forests, sometimes aid in this result. The eyelids are also made to open and shut to any degree required; and the pupil to expand and contract so as to assist in regulating the amount of light necessary to healthful vision. The direct rays being generally too powerful, nature has provided as far as possible that none but reflected light shall enter the eye. She has, also, by a variety of tints and colors, so softened or mellowed these reflections as to render them both healthful and beautiful. She has painted both the sea and the sky blue; the earth green and brown, though often interspersed with other hues of varying shades.

By far the greater portion of light which enters the eye, appears to be reflected from the ground and the various objects which rest upon it. Hence, the natural inference is that surfaces more or less dark form the best grounds upon which to view the various objects of sight. The painter, skilled in his profession, understands and avails himself of this principle in the production of works of art. In portraiture, and in all cases whenever the nature of the subject will admit, the true artist employs a dark back-ground upon which to display his picture. The reason is obvious to every reflecting mind. To see any object distinctly and pleasurably, little or no light should enter the pupil, except what is reflected directly from the object itself. Light, coming from other bodies in the rear or vicinity, has a tendency to fog and confuse the images of those we are examining; but if we contract the angle of vision so as to cut off reflections from either side, and interpose a back-ground between the objects under examination and those in the rear, to cut off and absorb, as much as possible, all foreign rays, then the objects of special inspection will appear more distinct and beautiful, and we shall be enabled to examine their various parts with less fatigue and far more pleasure. To narrow the angle of vision and cut off side reflections, a tin or paper tube, blackened on the inside to absorb the diffused light, is frequently employed, through which to view works of art, for the purpose of heightening their effects and increasing their beauty.

Diffused or scattered rays, coming from different directions, have a far more pernicious effect in dimming and confusing the sight than people generally are aware. To illustrate: place a plaster bust or other white object on a table in front of a white wall, and with light falling upon it from opposite directions, the effect will be to render the bust exceedingly dim and indistinct. Why? First, because the white wall behind it reflects as much light to the eye as the bust itself, thereby destroying the contrast necessary to show the outline. Secondly, the light falling on it from various directions destroys the proper contrast of light and shade essential to give boldness and relief. Thirdly, the light coming from various parts of the room to the eye, still further fogs and confuses the image of the bust on the retina. If, now, we introduce a dark back-ground behind the bust, to cut off reflections from the white wall, and shut off the light from every direction but one, so as to throw one-half of the bust in shadow, its beauty and brilliancy will be surprisingly increased. If we pursue the experiment still further, by viewing the bust through a tube like the one previously described, to cut off all side reflections coming from other objects to the eye, the effect will be still farther enhanced. If, now, we introduce any dark object, in place of the white bust, and view it under the same conditions, the effects will be substantially the same, only in a less marked degree. A familiar instance of the effect of diffused light in rendering objects indistinct and even invisible, may be witnessed any morning when the sky is clear. As the day dawns, the stars begin to fade, and gradually disappear, as the sunlight comes reflected from a thousand objects to the eye. When the curtain of night is again drawn, shutting out all light, excepting what is reflected or radiated directly from the stars themselves, they reäppear in all their former glory and beauty. The image projected from a magic lantern on a white screen, in a dark room, will appear bright and distinct so long as the room is kept in darkness; but the moment the gas is lighted or daylight admitted, the picture fades or entirely vanishes. From these examples, so familiar to all, it will be seen that just in proportion as we exclude light from the eye, excepting what is radiated or reflected from the object to be viewed, will that object be rendered visible and distinct.

So injurious are scattered or foreign rays to clear and distinct vision, that the optician, in the construction of telescopes, microscopes and other optical instruments, finds it of the utmost importance to exclude all such rays by every device within his knowledge. Hence, he employs diaphragms with narrow openings to cut them off, and blackens the inner surface of the tubes to absorb such as cannot be shut out. The intelligent photographer knows that unless the inner surface of his camera box and tube is blackened, he cannot produce a good picture. Why? Because such foreign rays as cannot be excluded must be absorbed, or they will be reflected on his plate, and thereby fog and flatten the image, and thus render his picture worthless. He knows, also, that a white back-ground will, in most cases, produce a similar result. Hence, he employs a dark one, to absorb the excess of light which might otherwise enter the camera and destroy his picture. It is essential that no light should fall on the plate, except what is reflected directly from the sitter and such other objects as are designed to be seen in the view.

Perhaps the reader has observed, while passing along the street after dark, that signs with gilt or light-colored letters on a dark ground were more easily read than those with black letters on a white ground. The reason will be obvious on reflection. In the first instance, the light is reflected from the letters themselves, upon the retina, just as the light is reflected from the sitter, upon the plate in the photographer's camera. At the same time, the dark ground of the sign absorbs such foreign reflections as would be likely to enter the eye and blur the images of the letters formed on the retina, just as the photographer's dark ground absorbs similar reflections, which otherwise might enter his camera and disturb his pictures. The eye is a perfect camera, of which the artificial one is but an imperfect copy. With black letters on a white ground, the case is reversed. Purely black letters reflect no light whatever, while the white ground impresses itself forcibly upon the retina, leaving the form or shape of the letters as so many blank spaces. A white ground, unlike a dark one, does not absorb foreign reflections, but rather increases their number. These, falling on the blank spaces which form the letters on the retina, partially obscure or whiten them, thereby lessening the contrast with the white ground of the sign, and thus rendering the letters more difficult to be seen in the distance or in a dim light.

In the earlier stages of the writer's blindness, while a little sight still remained, he found that gilt titles on the back of almost any book could be read with comparative ease, while the same title printed in black letters of a much larger size on the white title page, could not be distinguished. It was also observed that a white or light-colored thread resting on a black surface could be seen with tolerable distinctness, while a much coarser black thread resting on a white surface was invisible. The reader can satisfy himself of the correctness of these statements by repeating the experiments at dusk, or in a very dim light. In the fall and winter of 1853 and '54, the writer spent several months at the Ohio Institute for the Blind. Of one hundred and twenty pupils, only about one-third were in total darkness; the remainder possessed more or less sight. Every one of the latter with whom the writer conversed on the subject confirmed his own experience as related above.

As already intimated, nature, with rare exceptions, selects a comparatively dark ground upon which to exhibit her pictures and other objects of sight. Indeed, it may be said, with no great deviation from truth, that the great book of Nature is printed in letters of light and pictures of gold on leaves of darker hue. The stars and other heavenly bodies are lighter than the blue sky in which they appear suspended. Were this order reversed, were the sky lighter than the moon and stars, then, indeed, would night's splendor cease, and the glittering orbs above, which now delight the eye and enrapture the soul, would, if visible, present no more attraction than specks of dust on a whitened ceiling. A white sail in the distance is far more perceptible than the black hull resting on the blue waters. The golden harvest-field, bounded by green pastures and dark forests and brown acres, is more conspicuous than any of its darker surroundings. A bed of pinks or a cluster of roses growing out of a snowbank, or on a hill of chalk, would appear exceedingly tame and spiritless; but, with the brown earth or the greensward for a back-ground, they smile upon us with marvellous beauty and brilliancy. It is useless, however, to multiply examples. Enough has been said to establish the almost universal law that comparatively dark grounds form the most natural and proper surfaces upon which the various objects of sight should be viewed.

But it may be objected that the earth is sometimes covered for weeks and months with a mantle of snow which forms the background of such objects as remain uncovered. This, however, is the exception and not the rule. It should also be borne in mind that a mantle and a back-ground are two very opposite things. The one is a covering, designed to hide objects from view; the other is an open field in which to exhibit them to the best advantage. The snow has been appropriately termed a mantle, because by it most objects in nature are hid from sight. Even the few which the wind or the sun may have uncovered, such as trees and buildings, are far from being improved in appearance by being seen with the snow for a back-ground. On the contrary, they are rendered less distinct, and lose many of those beautiful tints and bold shadows which the painter loves to represent on his canvass.

The unpleasant and injurious effect of a strong light on the eyes is often experienced by travellers and others much exposed to the reflections of the sun's rays from large bodies of snow. But nature, as far as practicable, has guarded against all such injurious consequences; first, by causing the sun's rays in the winter to fall more obliquely, thus lowering their intensity and lessening their power; secondly, by a preponderance of cloudy weather, causing the excess of light to be shut off or absorbed during the greater portion of the season; thirdly, by shortening the days, and confining the multitude within doors, to avoid the cutting winds and piercing cold. In equatorial and tropical latitudes, the sun's rays are more nearly perpendicular, and consequently more intense. Fortunately, in these regions snow never falls except on the tops of the tallest peaks, where man rarely ventures. Were it otherwise—were the intense, perpendicular rays to fall upon a white surface, such as snow, the effects upon sight might prove most disastrous.

Thus much we have thought proper to say, to prepare the reader for a correct understanding of the means by which we propose to obviate, to a large extent, the evils growing out of the prevailing methods of printing and writing. If the great volume of Nature is written, not in characters of darkness, but in letters of light, upon the brown earth and the blue sky, may we not take a hint from the example. If it be true that Nature presents her pictures, not on a white, but on a comparatively dark ground, is it probable that we can improve upon her practice? If it be a fact that objects can be seen with greater distinctness, and with less strain and fatigue to the eye, on surfaces comparatively dark, does it not follow as a natural sequence that the practice of printing and writing with black ink on white paper is radically wrong, and ought to be reversed? If the practice and teachings of Nature (which are always the wisest and best) are to be taken for a guide, would it not be well to make a vigorous effort to discover some practicable method of printing and writing with light ink on dark paper? If the public could be furnished with books and writing materials of this description, does it not seem probable that much of the strain and fatigue now attendant on reading and writing would be obviated—that many valuable eyes would be saved from partial and perhaps total ruin—and that multitudes, now debarred the privilege, would be enabled to resume an occupation so pleasant, so profitable and so ennobling? As a consequence, might not publishers themselves expect a largely increased patronage and a wider circulation for their various issues?

We are well aware that at the outset of this reform, mechanical and other difficulties will doubtless arise, which it will be necessary to overcome. Perhaps the first to be met will be the difficulty of manufacturing a light ink, sufficiently intense not to be dimmed by the dark ground of the paper showing through, and thus destroying the requisite amount of contrast. Should this occur, it might possibly be obviated by the use of type with the letters sunk instead of raised, and printing the dark ground on light-colored paper, leaving the letters the color of the sheets. But this is a matter for the ink-maker and the practical printer. If raised type is adhered to, we can hardly suppose that any serious difficulty can arise in manufacturing paper of any shade required, and at a reasonable cost. But what special shade of paper, and what particular hue of ink must be employed can only be determined by patient experiment and a careful study of the effect of light and shade as seen in nature. But whatever shade of ink or paper is used, it seems necessary that there should be a strong contrast between the two, in order to give the best results. It is probable that some shade of blue, green or brown, will be found most suitable for the paper, as these colors are the most abundant in nature. For common use, perhaps brown will be found the most economical and convenient, while green and blue may take the preference for fancy and ornamental printing. Black rarely occurs in nature as a ground upon which objects are to be viewed, probably on account of its tendency to absorb too much light, and thus render the shadows too heavy. But with flat objects which cast no shadows, such as letters, this would not be so objectionable. Theoretically, gold or yellow inks promise the best success, as may be inferred from the instances already cited of gilt letters on signs and backs of books being read in a light so feeble as to render all others invisible or illegible. The yellow is the most brilliant ray in the solar spectrum and the brightest color in the rainbow, as the golden sun is the most luminous of all the heavenly bodies. The yellow may be seen when all other colors fade into obscurity, and when even the purest white is lost in darkness.

Since the commencement of this article, some months ago, the writer has submitted to an operation by Prof. A. Metz, of Massilon, Ohio, which has resulted in a partial restoration of sight, with signs of still further improvement. In order to test the progress of vision, as indicated by the ability to distinguish colors, the writer procured a piece of black cardboard about ten inches square. Upon this were pasted squares of paper of different colors, care being taken to select those with the brightest hues. These squares were about one and a half inches in size, and placed in rows about the same distance apart. At the first trial, after admitting light to the eye upon which the operation was performed, the gilt square only could be perceived, and this but faintly. The yellow soon became perceptible, while the white square situated directly between the two remained invisible. As the vision continued to improve, the blue was the next in order to be perceived. This was speedily followed by the white, red and green, which were nearly simultaneous in making their appearance. The polished surface of the gilt square may perhaps account for its being seen before the unpolished yellow. If this experiment has any bearing upon the subject, it indicates almost beyond a doubt that gold or yellow ink will be found the most appropriate for printing on dark surfaces. But, as already stated, experiment in a practical way only can determine the question definitely. Judging from occasional samples of fancy and ornamental painting and printing with gilt letters on a dark ground, nothing in the typographic art could be more beautiful than a printed page with gold or bronzed letters upon blue or brown paper. If, in addition to the looks, it should be found that print of this kind could be read with more ease and less fatigue to the eye, and thus enable many to read with comparative ease and safety, who are now unable to do so, then all must admit that this mode of printing, if found practicable, should at once be adopted.

Before closing, we wish to suggest an improvement in the construction of type, which, it seems probable, would materially aid in the ease and comfort of reading. If the reader will examine a page of ordinary print by a very dim light, he will observe that the thin parts or hair lines disappear, leaving only the thick portions visible, thus giving the letters a broken or mutilated appearance, as if printed from old and worn-out type, in which the hair lines are worn below the surface, leaving only the thick portions to take the ink and make the impression. Every one knows the difficulty of reading print of this description. Yet, to persons of feeble vision, the best of ordinary print presents the same appearance, and even those with good eyes weary much sooner from the same cause. The obvious remedy is the abolition of hair lines and of very fine print, and the use of type in which the letters are of nearly equal thickness in every part. This, of course, would offend the taste of those who regard the looks of their pages more than the knowledge they convey. He who "hungers and thirsts" after wisdom will not be scrupulous about the mere looks of the medium through which it is obtained. He will value knowledge itself, and the ease and comfort of acquiring it, more than the elegance of the channel through which it comes. But to the tearful, aching eye, there is little beauty in the most elegant type when it appears broken, mutilated and almost illegible. Letters of nearly equal thickness in every part, and consequently destitute of hair lines, may sometimes be seen in fancy and ornamental painting and printing, where they are introduced for the sake of variety. If the reader will observe, letters of this description can be seen at a greater distance, and in a light which would render ordinary letters of the same size nearly, or quite, illegible.

In conclusion, may we not hope that some enterprising printer, possessing the requisite means, will, as an experiment, endeavor to furnish the reading community with at least one small book or pamphlet, printed on the plan here proposed, with such additional improvements as his own skill and experience may suggest? By so doing, we feel assured that a generous public, ever ready to encourage whatever is new that promises to be useful, will abundantly reward him for his services.

Selected Papers.

A CASE OF SLOUGHING OF THE UTERUS.

By W. G. Drake, M.D., Atlanta, Ga.

On the 3d of August, 1860, while practising in Alabama, I was called to visit a negro woman in her first confinement; being absent at the time, Dr. B. visited the case, in the afternoon of that day, and its history, up to the time of my arrival on the 4th, as gathered from him, is about as follows:

He learned from the nurse that the woman had been complaining since the 2d. Making the necessary examination, he found the os uteri dilated and without any rigidity, but as all effort upon the part of the womb, at expulsion, had ceased, he commenced the administration of vini ergotæ, in drachm doses, at short intervals. Waiting sufficiently long for the specific effects of the drug to be produced, and none being developed, he concluded, as there were no alarming symptoms present, to retire for the night, with instructions to the nurse, that he be called if anything should occur requiring his attention. He was not disturbed, and found, on visiting the woman, in the morning, that she had passed, comparatively, a comfortable night, with only slight contractions, at long intervals; at this time, however, being more frequent and of greater force, ergot was again administered, and acted well until the head had thoroughly descended and become impacted between the pelvic bones, when nature ceased her efforts, and the ergot lost its effects.

Waiting several hours, and everything

remaining "in statu quo," I was again sent for, with the request that I bring obstetrical instruments. Soon after arriving, I instituted an examination and found firm impaction of the fœtal head, with the corrugations of the scalp protruding beyond the labia. I proposed the immediate application of the forceps—but the doctor suggested the propriety of waiting, as he had, a short while previous to my arrival, again resorted to the use of ergot.

An hour or two having elapsed and the uterus still remaining inert, an effort was made to apply the instruments, but we found it impossible to lock them until craniotomy was performed, after which, with the aid of the forceps, and without difficulty, quite a large and perfectly developed male fœtus was delivered.

On the passage of the head, there gushed forth an unusually large quantity of decomposed liquor amnii, of creamy consistency, the color of lemon, and an odor very offensive, so much so, indeed, that I found it impossible to remain in the room without vomiting.

There was no difficulty attending the removal of the placenta, nor was the post-partum hæmorrhage more considerable than usual with primiparæ, though the uterus failed to contract kindly until ergot was given, and ice-water applied externally and over the uterine region.

The nervous system was very much depressed, and reaction, though gradual, seemed to be perfect under the use of alcoholic stimuli. I remained with the patient that night, and left her next morning doing as well as could be expected after a protracted labor and an instrumental delivery.

I visited the case five or six days consecutively, and no untoward symptoms occurring, she was discharged. There had not been, up to that time, any indication of metritis or metro-peritonitis, mammary abscess, nor any of the other "ills" to which lying-in-women "are heir to"—the patient remaining cheerful, the appetite good, the bowels moving regularly, without calling into requisition the aid of the usual remedies on such occasions. In fact, I never attended a case that gave promise of a more favorable termination.

Thirteen days subsequent to my last visit, I was again sent for, and on my arrival was informed by the nurse that the woman's bladder "was out." On making an examination, I found, instead of that viscus being prolapsed, I had a case of procidentia uteri, with the lips and vaginal cervix, &c., in a state of sphacelus. I introduced a catheter to the fundus, through which passed, probably, a half-pint of limpid fluid, and not very offensive. Then grasping the protruding part between the thumb and index finger, I made gentle pressure, by degrees approaching the body of the organ until I reached a point of sensibility, and just below that point and above the surgical neck I excised the insensible portion.

Various astringents and antiseptic remedies were applied locally, hoping thereby to arrest further decomposition and complete destruction of the organ, and as the functions of assimilation and digestion were somewhat impaired, the vegetable and ferruginous tonics were administered with apparent benefit. I noticed, however, on each visit, that the womb had gradually descended, and on one occasion, I caught hold of it and made gentle traction, and no pain being complained of, I continued to pull, when, to my utter astonishment, there came away the entire mass with its Fallopian appendages. From that time, the woman improved rapidly in general health, and it was but a short time until she was competent to perform all her duties as house-servant.

About eighteen months after the coming away of the womb, she informed me that she came unwell regularly, or in other words, there was a periodical discharge of blood from the vagina, corresponding with the catamenial flow, which occurred regularly prior to the time of her conception, and, at times, the sexual orgasm was as intense, and the sensations peculiar to the act of coition were as *exquisitely acute* as before her continement.

The case, I must confess, is to me an unique one (never having seen a similar one recorded, and in conversation in regard to it with medical men, have had them express their doubts as to its being truly the uterus, but, instead, a false membrane), and I do not pretend to account for the above facts, except upon the supposition that both, or at least one of the ovaries remained intact. Having an opportunity in 1862, I made a digital examination and found that quite a change had taken place in the physical condition of the vagina; its walls, as well as the sphincter vaginæ, were very much contracted, affording considerable resistance to the introduction of the finger, and in a measure accounting for the cessation of the stillicidium urinæ, with which she was at first troubled. I saw her again in 1865. She informed me that she enjoyed perfect health, and suffered no inconvenience from being minus a womb. I still have the specimen in alcohol, and those who may be skeptical, can have an opportunity of examining it, by calling at my office.—*Georgia Medical Companion.*

Medical and Surgical Journal.

Boston: Thursday, January 18, 1872.

FREQUENCY OF ULCERATION OF THE LARYNX IN SYPHILIS.

After a thorough study of the effects caused by syphilis on the larynx, Dr. Jules Sommerbrodt arrives at certain results, which he compares with the observations of other investigators and publishes in the *Wiener Med. Presse.*

In 100 autopsies of persons affected with secondary syphilis, examined at Prague, Kühle found ulcerations of the larynx 15 times, while Altenhofer has only seen them 25 times in 1200 persons having syphilis. On the other hand, Gerhardt and Roth, in 54 patients, have found ulcerations 18 times, viz. :—11 times in 44 patients having secondary symptoms, and 7 times in 12 patients with tertiary symptoms. In 1000 cases Lewin has met 44 with a concomitant affection of the larynx and more or less strongly marked hoarseness. Engelstedt has had 25 cases of laryngeal symptoms in 521 syphilitic patients, 14 in 292 men and 11 in 229 women.

In 84 patients, having constitutional syphilis, under the observation of Dr. Sommerbrodt in the Hospital of All-Saints during nine months, 15 presented ulcerations of the larynx in different stages, and 14 had a catarrhal affection, with hypertrophy of the mucous membrane. This lesion is, then, a very frequent one, as is shown by Türck in his Manual; in 238 observations of the different diseases of the larynx and the vocal passages, 45 were found to result from syphilitic ulcerations. This fact has been fully confirmed by still farther experience.

The manifestations of this disease occur at all stages of infection. Türck has found them thirty years after the primary disease, and Frankl met them in an infant two months old, in whom syphilis appeared one month after birth. The shortest period noticed by Türck has been six months, by the author five, and by Lewin two or three months. Generally, the ulcerations of the larynx have been more frequent with secondary and tertiary than with primary symptoms.

The seat of the ulcerations is shown in the following table of 92 cases where the locality was indicated:—

Epiglottis			21	times.
True vocal cords	both	17	34	"
	right	4		
	left	13		
False vocal cords	both	2	5	"
	right	0		
	left	3		
Interior of the larynx	above	9	19	"
	in front	10		
Aryteno-epiglottidean folds			6	"
Rima glottidis			2	"
Right pyriform sinus			1	"
Inferior portion of the larynx			4	"

The vocal cords are, then, the most frequently affected, and particularly the left, and this locality is the more important to notice, as, according to Rheiner, the ulcers generally attack the right side. This fact may, therefore, be employed in a differential diagnosis of the diseases of this region. As a general rule, the superior portion of the larynx is that usually attacked by syphilitic ulcerations.

Need of a Schoolmaster.—We copy, *verbatim et literatim*, two documents which have been sent us by friends in different parts of the country; they certainly bear evidence of a need of that preliminary education which should be *demanded* of those commencing their studies in our medical schools:—

———, Dec. 2, 1871.

This to certify to the facts that i no in regard to —— ——'s health at this time i have bin the physician of his family for Twelve monts an find him in bad health verry mutch Amaciated i suppose from chronic Diaria. with appression of the thorax cavity. as to His habbits likely to aggrivate or prolong the disease i dont think he is has any. only he has to labor more than he is able to do to make support.

Dr. ———.

State of ——— }
County of ——— }

Sworn to and subscribed before me, and I further certify that Dr. ——— is a regular practising physician and worthy of credit.

In testimony whereof I have hereunto set my hand and official seal of office at ———, Dec. 2, 1871.

———,
County Clerk.

This is to Sertifie That I have ben tenden Mr. —— —— a Seam [seaman] The case Slow fever Brot On by a cold and Strane on the mane corde of the Grind [groin] apearance of a uite [white] Suelling [swelling] he is ben sike a Bout Six ueaks which I hope you will help him to Sum Hospittle fease [fees]

And I remane youres with respeck

Mr. ——— Esqr. ——— ———
Colecker of ——— His Physician

COMPARATIVE NEUROLOGY AND EMBRYOLOGY.—In announcing courses of lectures on comparative anatomy and zoölogy, Prof. Wilder, of Cornell University, asks aid in procuring specimens of brains and embryos, and offers suggestions as to the best way in which the aid can be rendered, in such a manner as to be intelligible to unscientific persons. He wishes especially brains of *all* animals, both *wild* and *domesticated*, the *unborn young* of animals, at all stages of development, and monsters of all kinds.

Such specimens are of the greatest value to science. Gœthe, who was naturalist as well as poet, well said: "It is in her monstrosities that Nature reveals to us her secrets," and many of the more obscure laws of life and organization have been elucidated by the aid of these unfortunate creatures, which go astray before they are born, and live only to die. The not infrequent occurrence of such malformations among the human race should alone induce a careful study of whatever may lead to a knowledge of their nature and possible causes. There are few persons, especially living in the country or upon farms, who have not occasional opportunities of procuring such specimens as are desired: but none are so likely to have them as the hunters, the butchers and the stock-breeders; he asks all such to save and send the specimens that almost daily come into their hands. Their value to science is not to be estimated by the little trouble it may take to procure them, or the price which ignorance sets upon them.

CASE OF CHRONIC NASAL CATARRH.—Dr. Norton Folsom, Physician to the New York Dispensary, writes to the *Medical Gazette:*

The following case is reported mainly for the purpose of calling attention to the convenience of the apparatus employed in treatment.

Mr. B——, æt. 35, a fine singer, free, so far as known, from any constitutional taint, had suffered for over a year from an offensive, purulent discharge from the nose, which frequently formed crusts as large as the thumb, so hard and so closely adherent as to be disengaged with considerable difficulty. The voice was so much affected that singing had been almost entirely relinquished, and the fœtor of the discharge interfered with his social relations.

Rhinoscopic and anterior nasal examination showed the mucous membrane generally engorged, eroded in patches, covered with viscid muco-purulent secretion, and the lower and posterior part of the vomer entirely gone.

The nasal douche had previously been tried without benefit, but its use was resumed with a solution of permanganate of potassa, together with the application of spray of alum and of tanno-glycerine. After a few weeks, the only material improvement being the diminution of fœtor, the following line of treatment (mainly that lately recommended by Drs. Sass and Lincoln at the Med. Lib. and Jour. Assoc.) was adopted. The whole nasal cavity being strongly illuminated with the concave mirror, with the use of the rhinoscopic mirror behind, and with a nasal speculum, contrived for the purpose, in front, the cavity was entirely freed from crusts and secretion by forceps and probes, and by the patient's own efforts with a basin of water. A solution of nitrate of silver (gr. 40–60 ad unc.) was then applied in the form of spray, from front and rear, to every part of the cavity, and the thoroughness of its action verified by examination. This was repeated at intervals of a few days for about ten weeks, the improvement being constant, and after an interval of a month, during which he grew worse, it was resumed for six weeks, when it was entirely abandoned, after about twenty applications in all, there being no offensive discharge, no formation of crusts, and the mucous membrane presenting a healthy pink appearance throughout. The voice was entirely restored. There has been no relapse during the year which has ensued.

The spray was applied with the ordinary hand-ball apparatus, the fluid being contained in a test-tube held in the hand, and the issue of the spray being instantly and completely controlled by the thumb compressing the rubber tube where it joins the atomizer. For the posterior nares, the upward-jet atomizer was used, a small piece of hard rubber being fitted to the tube just in joint of the orifice, projecting upward about three-eighths of an inch, forming a palate-hook.

The addition of a few drops of *eau de Cologne* to the spray solution rendered it less disagreeable, and the after-taste was sensibly diminished by gargling with salt and water. The nostrils and upper lip were protected with an unguent.

The nasal speculum contrived for the exigencies of this case is made by coiling a piece of German silver wire at its middle (as in an ordinary eyelid retractor), so that the ends tend to spring apart; the extremities being then bent nearly at a right angle, are curled up into blades about one inch and one-fourth long and three-eighths of an inch wide, which *flare apart* a little at the tips, which are to be introduced into the nostril. The degree of expansion is limited by a screw. The whole instrument is gilded. It is made by Messrs. Tiemann & Co. A useful addition is a piece of flexible wire attached to the ring of the instrument, which can be made to rest on the lip or cheek of the patient, and tilt or prop the nostril up horizontally. This leaves both hands free for manipulation, while the light is thrown in from the mirror on the forehead. In this way nearly every part of the naso-pharyngeal cavity can be reached, and accumulations, even upon the posterior wall of the pharynx, be detached through the anterior nares.—*Med. and Surg. Reporter.*

Foreign Body in the Trachea. By J. Underwood Hall, M.D., Gold Hill, Nevada.—On Wednesday, July 9, 1871, at 11 o'clock, A.M., I was summoned to the residence of Mr. George W. D——, a few rods distant from my office, whose daughter, aged 4½ years, represented that she had just swallowed a bean; and judging from her livid countenance, embarrassed breathing and impending suffocation, I was induced to believe that her assertion was correct. I at once introduced my index finger into the pharynx and fauces, which produced moderate retching, at the same time apparently relieving the obstruction and spasm of the glottis. I gave her some water, which she drank without difficulty, and expressed herself entirely relieved. I questioned her as to where she got the bean; she said that she would show me, and went out a few paces in front of the house, pointing to a spot where a number of oblong white beans had been spilled on the ground. At that time, from her apparent relief, I was induced to believe that the bean had not passed into the trachea, but had been lodged externally to the rima glottidis, and that by thrusting my finger into the pharynx I had dislodged it, and that she had swallowed it into the stomach. I left the patient under that conviction, but on the following day (she having experienced no inconvenience in the meantime from the extraneous body, no cough nor dyspnœa), 28 or 29 hours after the accident, there was a message left at my office to visit in haste the little girl, that "she was taken just as she was the day before." I was absent, returned in an hour, and responded to the summons. On my arrival at the house, I found Drs. C. and B. in attendance, who had been summoned in my absence. Dr. C., arriving first, had diagnosticated the case as laryngismus stridulus, and accordingly gave her 20 grs. pulv. ipecac., prescribed brandy internally, and ordered mustard bath; no emesis from the ipecacuanha. The dyspnœa and impending suffocation very great. Dr. B. arrived, concurred in the diagnosis, and suggested one scruple of sulphate of zinc, which was given, producing no emesis. At this juncture I arrived, and received from the physicians in charge an account of the treatment the patient had received, and their diagnosis of the case. Up to that time she apparently had received no benefit from the treatment she had been subjected to, the prostration and impending suffocation becoming greater with every respiration. In consultation with Drs. C. and B., I stated that I must disagree with them as to their diagnosis, being convinced that the symptoms were not croupal, but that they were produced by a foreign body in the windpipe. But they contended that no extraneous body could remain in the air-passages 28 or 29 hours without producing symptoms to indicate its presence, she having rested, ate, drank and slept as usual, until a few minutes before the second seizure of suffocation. I insisted that she must die from suffocation very soon if not relieved by an operation, and urged the necessity of resorting to tracheotomy as the only probable method of relieving her. Her counsel insisted on administering one more scruple of zinc, and if that did not produce vomiting, and relieve the spasm of the glottis, that they would then consent to the operation. The zinc was given, waiting some twenty minutes for its operation, during which time a spasm intervened, from which she never rallied. I was so very sanguine that my diagnosis was correct, that I desired to verify it by an autopsy, to vindicate myself in the former conducting of the case, and insisted on making a *post-mortem* examination. Dr. B. and myself proceeded to open the windpipe, and found the bean lodged transversely in the trachea at its bifurcation. The bean was greatly swollen, and doubtless had failed to produce much obstruction until the swelling occurred, remaining dormant from the time that I dislodged it from the glottis.

My object in submitting this article is to show the length of time that an extraneous body may remain in the air-passages without producing such aggravated symptoms as to indicate its presence, and from its entire passiveness to lead two physicians, eminently qualified to diagnosticate, to make an incorrect diagnosis.—*Richmond and Louisville Medical Journal.*

Electro-puncture of the Heart.—Puncture of the heart has been resorted to in chloroform narcosis, and on two occasions the galvanic current has been passed through the needle. Notwithstanding the want of success that has attended the practice, Dr. Steiner, of Vienna, has been further investigating the subject, and details his experiments and conclusions in the *Archiv. f. Klin. Chir.* Having recapitulated the facts known as to recovery from penetrating wounds of the heart, and the effects of puncture of this organ with needles in fourteen experiments on animals, Dr. Steiner repudiates the fear that electro-puncture of the heart might injure by caustic action, or by setting free gas, as only a weak current should be used. Dr. Steiner narcotized ten animals with chloroform, and was able to restore six out of the ten. The conclusions he arrives at are that electro-puncture of the heart is not dangerous, and that it should be tried when the heart's action suddenly fails. He prefers it to artificial respiration, but he would employ this in addition, as soon as there is any sign of a return of the heart's action. The positive pole is to be applied to the puncture-needle, the negative being placed in the seventh intercostal space on the left side. There can be no doubt that this is a most powerful mode of stimulating the heart, and it is likely, also, to excite respiratory movement. Whether many men would like to resort to it, even in extreme cases, seems to us very doubtful.—*The Doctor.*

Circumcision in Utero.—A member of the Philadelphia Obstetrical Society, having witnessed the circumcision of a Jewish child, described this operation to his wife, who was in the early period of pregnancy, A strong impression was made on her mind, and the event was the subject of constant thought for several days. Seven months afterward, she gave birth to a child whose glans penis was found exposed, " while the retracted prepuce actually showed the yet granulating cicatrix of what looked like a very recent circumcision!" This extraordinary circumstance, which is related in a first-class journal, under the head of "Birth-mark from maternal impressions," suggests a ready method by which our fellow-citizens of the Israelitish faith may do away with the sanguinary mode of performing circumcision in common use.—*Pacific Med. Journal.*

A New and Cheap Method of Preparing Pure Dextrine.—For this purpose, 500 parts of potato-starch are mixed with 1,500 parts of cold distilled water and 8 parts of pure oxalic acid, and this mixture placed in a suitable vessel on a water-bath and heated until a small sample tested with iodine solution does not produce the reaction of starch. When this is found to be the case, the vessel is immediately removed from the water-bath, and the liquid neutralized with pure carbonate of lime. After having been left standing for a couple of days, the liquor is filtered, and the clear filtrate evaporated upon a water-bath until the mass has become quite a paste, which is removed by a spatula, and, having been made into a thin cake, is placed upon paper and further dried in a warm place. Two hundred and twenty parts of pure dextrine are thus attained.—*Boston Journal of Chemistry.*

The Protective Power of Vaccination.—During these times of skepticism as to the protective virtue of vaccination, it may be of some interest to learn a little fact which has lately come to our knowledge, on the accuracy of which perfect reliance can be placed. A military surgeon having recently had occasion to examine a large number of English recruits, found that 60 per cent. of lads unprotected by vaccination had been the subjects of smallpox, as against 1.90 per cent. of protected recruits who bore no traces of smallpox. Remembering that these are men who have escaped any permanent damage from the disease, what must be the percentage of attacks of unprotected cases generally?—*Lancet.*

Medical Miscellany.

Foot and Mouth Disease in Children.—In certain parts of England a disease allied to the foot and mouth disease in cattle has appeared among children. It is asserted that the malady owes its origin to the milk supplied from a farm on which the stock has been affected by the disease in question.

Foreign Aid for Chicago.—The Dublin *Medical Press* mentions the fact that a committee had been appointed in London to receive funds in aid of the Chicago College of Pharmacy, and adds the name of a responsible gentleman in Dublin who will also receive contributions of specimens for the museum, of chemicals, drugs, apparatus and books for the same purpose. The committee in London includes the President of the Pharmaceutical Society, the ex-Lord Mayor of the city, the President of the Pharmaceutical Conference, and other influential scientific men.

Prof. Crocq, of Brussels, on Cholera Contagion.—The question of cholera is at present one of so much importance that all documents on the subject coming from recognized authorities, and bearing a practical character, must be noted with great care. Prof. Crocq, of Belgium, Vice-president of the Brussels Academy of Medicine, has just communicated to the Paris Academy of Medicine the results of a series of experiments which he has carried on upon animals with the object of testing whether the alvine evacuations constitute the true vehicle of the choleraic virus. In all of the animals he has succeeded in producing most of the symptoms of cholera, and he finds that the alvine evacuations indeed constitute the vehicle of the virus, not, however, as was suggested by Pettenkofer, through a kind of fermentation, but because of the immediate presence of the virus in the evacuations. M. Crocq draws the following inferences from the results of his researches:—

1. Cholera is contagious, and is transmitted by a virus, the vehicle of which is the alvine evacuations.
2. The virus may manifest its effects even less than twelve hours before any evacuation of matter.
3. The period of incubation may be only of two hours; it may continue over one or two days, and even more.
4. All the subjects do not show a like predisposition to undergo the effects of the choleraic poison, receptivity may even be altogether absent.—*Exchange.*

Periodical Hæmorrhage from the Uterus of an Infant.—Dr. R. P. Ervin, of Prairie Bluff, Alabama, narrates a most remarkable case of a discharge of blood from the uterus of an infant, commencing when it was a month old, lasting from four to six days, recurring every twenty-eight days, and this strange phenomenon continuing until the infant was eighteen months of age; it then ceased, and has not reappeared. The child is now three years old, its parents are healthy, and it has always been perfectly well.—*American Practitioner.*

Gastralgia Treated By Electricity.—Dr. Mierques *(Lyon Médical)* applies in gastralgia a plate of zinc on the epigastrium, under which there is placed a piece of linen moistened with vinegar and water, and a similar disc of copper between the shoulders. These are united by a conducting wire, and kept on by a bandage. They are useful, he says, in neuralgia, and cramps of the lower extremities, &c.—*The Doctor.*

Mr. Darwin, the author of "The Origin of Species," is reported to be engaged upon a new work, in which the facial expression of animals will be one of the chief topics discussed.—*Med. and Surg. Reporter.*

To Correspondents.—Communications accepted:—Climate of Colorado.—Remarks on Cataract.—Case of Poisoning by the External Application of Tinct. Rad. Aconiti.

Books Received.—Selected Obstetrical and Gynæcological Works of Sir James Y. Simpson, Bart., M.D., &c., containing the Substance of his Lectures on Midwifery. Edited by J. Watt Black, M.A., M.D., &c. New York: D. Appleton & Co. 1871. Pp. 852. (From the Publishers.)—A Clinical Manual of the Diseases of the Ear. By Lawrence Turnbull, M.D., Physician to the Department of Diseases of the Eye and Ear of Howard Hospital of Philadelphia, &c. Philadelphia: J. B. Lippincott & Co. 1872. Pp. 852. (From James Campbell.)

Pamphlets.—Inaugural Address, including a Paper on Infant Asylums. By A. Jacobi, M.D., New York. Pp. 46.—Report of the Commissioner of Pensions to the Secretary of the Interior, for the year ending June 30, 1871. Washington. (From Dr. T. B. Hood.)

Deaths in sixteen Cities and Towns of Massachusetts for the week ending Jan. 13, 1872.

Cities and Towns.	*No. of Deaths.*	*Prevalent Diseases.*	
Boston	117	Consumption	52
Charlestown	11	Pneumonia	36
Worcester	18	Scarlet fever	13
Lowell	12	Croup and Diphtheria	12
Milford	1		
Chelsea	5		
Cambridge	8		
Salem	13		
Lawrence	15		
Springfield	5		
Lynn	6		
Fitchburg	1		
Newburyport	2		
Somerville	5		
Fall River	17		
Haverhill	1		
	237		

Boston reports one death from smallpox.

George Derby, M.D.,
Secretary of State Board of Health.

Deaths in Boston for the week ending Saturday, Jan. 13th, 117. Males, 57; females, 60. Accident, 3—apoplexy, 3—asthma, 1—inflammation of the bowels, 1—bronchitis, 6—congestion of the brain, 2—disease of the brain, 5—cancer, 1—cyanosis, 1—consumption, 23—convulsions. 6—croup, 1—diarrhœa, 2—dropsy of brain, 2—diphtheria, 1—scarlet fever, 4—typhoid fever, 2—gangrene, 1—disease of heart, 3—insanity, 1—intemperance, 2—disease of the kidneys, 3—disease of the liver, 1—congestion of the lungs, 1—inflammation of the lungs, 18—marasmus, 3—measles, 1—old age, 5—paralysis, 3—premature birth, 1—peritonitis, 1—puerperal disease, 1—smallpox, 1—tumor, 1—septæmia, 1—unknown, 5.

Under 5 years of age, 42—between 5 and 20 years, 11—between 20 and 40 years, 26—between 40 and 60 years, 22—above 60 years, 16. Born in the United States, 82—Ireland, 25—other places, 10.

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Original Communications.

DISTRICT SOCIETIES,

THEIR PURPOSE, POWERS AND LIMITATIONS.

At a recent meeting of the Norfolk (Mass.) District Medical Society, on a motion—"that the President and Secretary of the Society be authorized in behalf of the Society to appoint delegates to the next annual meeting of the American Medical Association," on being appealed to in course of the debate—

Dr. Cotting said that he would endeavor, in as few words as possible, to answer some of the questions just asked, though he thought that a little examination of the Charter and By-Laws would satisfy any member that there was no great difficulty in their solution.

In the first place, the whole matter of delegates to the American Medical Association, and their appointment, so far as the Massachusetts Medical Society and its Districts are concerned, might be found briefly set forth in the Society's "Communications," just published for 1871, Proceedings, page 210.

There might not be any impropriety in voting to authorize the President and Secretary of a District Society to appoint its quota of delegates; but such a vote was unnecessary at this time, inasmuch as these officers in the Norfolk Society had invariably done this—the Councillors having given the power long ago (1852), in case District Societies, to whom the Councillors had then delegated the matter, failed or omitted to make the appointments in season.

But, by whomsoever appointed, the delegates must have their credentials signed by the President and Secretary of the Massachusetts Medical Society (in addition to any other signatures these credentials may bear); and the delegates must be styled "*Delegates of the Massachusetts Medical Society*," and not of a District Society. Deviations from this rule, if any such have occurred, must have been through accident or misapprehension.

The State Society existed long before there was a District Society, and would continue to exist, with all its privileges and powers, if all the District Societies were dissolved. While we remain a District Society we must conform to the Charter and By-Laws of the "Parent Society." The Massachusetts Medical Society has been truly called the Parent Society, the District Societies owing to it, and to it alone through the Councillors, their very existence and continuance:—"*And be it further enacted*" (says the Act of 1803, § 5) "That the said Councillors, upon application of any five members of the said Society, may establish, within such districts and portions of this Commonwealth as they shall think expedient, subordinate societies and meetings, to consist of Fellows of the said Corporation residing within such districts respectively"—and the Act goes on, in the same sentence, to state the purpose for which said Councillors "may establish" District Societies, "wherein," it continues, "the communication of cases and experiments may be made, and the diffusion of knowledge in medicine and surgery may be encouraged and promoted." A little further on, after a clause relating to Councillors and Censors, now repealed, the same Act adds:—"And the members of such subordinate Societies shall be holden to report to the Councillors of the general Society all such cases as may be selected for their importance and utility; and the said subordinate Societies shall be subject to the regulations of the general Society in all matters wherein the general Society shall be concerned; and the said subordinate Societies may appoint their own officers, and establish regulations for their particular government, not repugnant to the By-Laws of the general Society; and shall be capable to purchase, and receive by donation, books, philosophical and chirurgical instruments, or other personal property, and may hold and dispose of the same, exclusive of any authority of the general Society."

Thus is the *purpose* of District Societies distinctly stated, their *duties* defined, and their *powers* limited, by the early State law of 1803, which has remained unaltered in these respects to the present time, and is now in full force.

By the "Revised Statutes," 1836, the Councillors were authorized to subdivide or alter any of the said districts and to make new districts whenever the public good may seem to require it.

Before 1850 there were District Societies only here and there in the State—established at irregular intervals. In 1850 the Councillors divided the whole State into districts, and established a Society in each district. An addition to the Charter in that year, 1850, gave to the District Societies the privilege of choosing Councillors and Censors, as follows:—" Each of the District Societies into which the Massachusetts Medical Society has been or may be divided, may elect annually, by ballot, from among its members the Councillors and Censors to which, by the By-Laws of the Society, it may be entitled."

Such are all the powers and privileges given to the District Societies by the laws of the State, with all that is said of them in the Charter of the general Society. In accordance with these State laws, District Societies are established by the Councillors; and so established expressly for the promotion and diffusion of medical science, and for nothing else; and by these laws, being invariably called *subordinate* Societies, they are subject to the regulations of the general Society in all matters which concern the latter. In this statement we are not speaking of what some persons might prefer, or what any of us might think a better plan, but what actually exists according to and by the present laws; yet it may be added that committees of the Society's most eminent Fellows have been unable to suggest material improvements, and that it has, more than once, been held up as a model by gentlemen of other States. The organization has effected much good for the profession, and, so far as known, never worked injury to individuals.

Furthermore, as to delegates to the American Medical Association—if the Councillors (to whom, from the start, this whole matter was referred by the general Society) should again vote, as last year, not to send—a District Society, of itself, could not send delegates in its own name, for its only authority to appoint delegates is derived from votes of the Councillors in 1852, which votes direct that the credentials, "filled up by the District Societies in such a manner as they may see fit," shall be signed by the President and Secretary of the general Society, and that the delegates shall be called "Delegates of the Massachusetts Medical Society."

Hitherto the difficulty has been to induce members to go as delegates to the American Medical Association, and, as far as Dr. C. was aware, the appointment had never been refused to any one in the Norfolk District who had intimated the slightest desire for it.

The vote of the Councillors, *not to send*, was limited to one year. That year having passed, there is now no obstacle in the way, and any District Society may appoint delegates in the usual prescribed method. But as the power to appoint, in case of omission by any District Society, is already in the President and Secretary of such District Society, the vote proposed here and now is, as before stated, unnecessary, and to pass it is only to cumber the Records with useless matter.

A CASE SHOWING GREAT TENACITY OF LIFE AFTER GUN-SHOT INJURY TO THE SPINAL CORD.

By W. F. McClelland, M.D., Denver City, Col.

July 16th, 1871, M. L. M. received a gunshot wound at the hands of his sister-in-law, the ball passing directly through the spinous process, foramen and body of the fourth dorsal vertebra, thence through the substance of the right lung, lodging somewhere in the chest, and causing complete paralysis of all the body below the wound. The hæmorrhage at first was quite free, both from the wound and by the trachea. I was called to the patient on the same day. On examination, I was able to pass my probe through the opening made by the ball some five inches into the right lung, and with a little manipulation I could move the fragments of the bone. The patient was confined to his bed from that time, with no signs of returning sensation or motion; all this time the bladder has been relieved by the catheter, and the bowels moved by distending the rectum with injections. Some six or eight weeks after the accident, the wound in the back healed, and the lung recovered, so that it performed its functions almost as well as its fellow, except that at times a spasmodic cough came on, which lasted for a few minutes only. About the same time the lower extremities became dropsical, and several blisters made their appearance, one over the sacrum and one of considerable size on each thigh.

Nov. 24th.—The ulcers became very large, and afterwards constantly increased. His appetite was good from the first, and he was able to transact business in all respects as well as when in the enjoyment of all his bodily functions. His suffering was very slight.

I have just learned that Mr. M. died Nov. 26th, having lived 133 days after the receipt of his wound. His last days were passed in another County (Douglas), some forty-seven miles from Denver, where he was attended by Dr. Sperry, who made the *post-mortem* examination.

I very much regret the circumstances that compel me to forward this without the full particulars of the pathological condition of the cord and lungs.

This is one more case added to the list showing that the complete severance of the spinal cord close to the great cerebral mass does not necessarily cause immediate extinction of life. The treatment was about the same as is usually resorted to in such cases, having for its object the relief of pain when necessary, and to keep up the tone of the system if food should fail to meet its wants. No surgical interference was ever attempted, as I was persuaded that it would avail nothing.

REMARKS ON CATARACT.—III.

By Edward G. Loring, M.D., New York.

Since sending my last paper to the Journal, in which I endeavored to prove by argument that my original statement that Graefe had meant the test of vision $\frac{1}{4}$ to apply to all his cases of cataract was correct, I have discovered that Graefe has himself settled the question in the affirmative beyond a shadow of a doubt. His statements are directly to the point at issue, and are taken from a discussion on cataract at the Ophthalmological Congress held in 1864. (*Zehender*, 1864, p. 343.) Graefe says :—

"It would certainly be very desirable to come to some agreement in regard to the amount of vision. I am at present employed in making out a statistical record of over 1600 cases of flap extraction, in which I have brought the results into four groups :

"1. Complete success ; the sharpness of vision amounts at least to $\frac{1}{4}$. The patients can also read the finest print.

"2. The sharpness of vision exceeds $\frac{1}{30}$. The patients can only read the largest print, but are able, if the eccentric vision is proportionately good, under ordinary circumstances, to go about alone.

"3. The patients can count fingers at, at least, one foot.

"4. The patients remain on even a lower grade than the last, and have either a minimum qualitative, or only a quantitative perception of light, or indeed no perception of light at all.

"Perhaps this or some similar classification might be adopted by the Society for the purposes of comparison."

This stamps the fact at once not only that Graefe meant the test to apply to the whole 1600 cases, but that he wished the Society to adopt either the classification which he had used in his own cases or a similar one based on scientific principles, and not to rely on the worthless one of "fine print." Could more overwhelming proof as to Graefe's real intentions be produced ? and I only regret that I should have imposed on such as were enthusiastic enough to read them what must now appear as my all too redundant remarks. As to myself, the labor of defending the statistics of one whose word in ophthalmic matters has been generally considered almost as law, has been from the beginning more a pleasure than a task.

This ends, so far as I am concerned, the discussion of this point. But a word of explanation is necessary, as the manner in which I grouped the percentages into series in my last was objected to.

I did this for the following reasons :—first, because Graefe had himself given the rates in these three forms, viz., 80, 84 and 91 per cent., and I wished to keep his figures ; secondly, as I had taken the lowest, I thought I was entitled to take also the intermediate and highest to form an average. These three figures averaged give 85 per ct., while that from the pressure bandage alone gives 84 per cent. This difference of 1 per cent. I allowed to remain for my third and principal reason, which was because all my colleagues and those especially who were the immediate disciples of Graefe, and who should have been best acquainted with his works, denied, till confronted with the figures, the existence of such statistics.

Again, in my former paper I took, to be on the safe side, the highest estimate of the linear which I could find, and assumed that "what might have been" really was, and that Graefe did actually get 94 per cent. of success with vision $\frac{1}{6}$. But a later publication than the one then referred to shows that he actually got only 90·4 per cent.[*] If, now, we take the difference between the fractions $\frac{1}{4}$ and $\frac{1}{6}$, as in my former paper, and subtract as in that case 9 per cent., we shall then have 81·4 per cent. linear against 84 per cent. of flap. But the fact is, that in order to be within safe limits, we have leaned much too far on the other side, and taken an absurdly low percentage to represent the difference between vision $\frac{1}{4}$ and $\frac{1}{6}$.

The fairest way of getting a correct estimate is manifestly by actual count, and, as Graefe's statistics did not furnish such data, the difference between the fractions was taken as a basis of comparison. But even if we cannot obtain from Graefe's statistics the desired information, we can get a very good and by far the most correct approximation towards the proper number of cases to be subtracted from the tables of others. To do this we will take six tables (all, in fact, to which we had access) where the specific results are given. Two of these tables are taken from the Reports of the Boston Eye and Ear Infirmary, three from Dr. Knapp and one from Dr. Derby.

These six tables give, when averaged, 21 cases per hundred more with vision $\frac{1}{6}$ than $\frac{1}{4}$. If, then, we take 21 from 90·4 we have as a result 69·4 perfect success with the linear against 84 with the flap, with $V=\frac{1}{4}$ in each. But allowing Graefe from superior skill to get 25 per cent.—and this is an enormous concession—less cases with vision $\frac{1}{6}$ than other operators, we still must subtract 16 per cent. from 90·4, which leaves 74·4 linear against 84 of the flap, a difference of 10 per cent. in favor of the latter operation.

Reports of Medical Societies.

BOSTON SOCIETY OF MEDICAL SCIENCES.

EDWARD WIGGLESWORTH, JR., M.D., SECRETARY.

Dec. 5th, 1871.—The Society met at the house of Dr. Ellis, Dr. Ellis in the chair.

Determination of the Amount of Urea in Urine.—Dr. Bowditch showed an apparatus for the quantitative examination of urea in urine by the method proposed by Dr. Hüfner,[†] namely, the decomposition of urea by subbromite of soda.[‡] The nitrogen gas set free by this decomposition is the measure of the amount of urea contained in the urine. The apparatus in which the decomposition takes place consists of two glass bulbs connected by a glass stop-cock. The lower and smaller of the two bulbs is closed at the end opposite the stop-cock, while the larger one ends in a straight glass tube which is inserted through the bottom of a cup-shaped vessel made from a pint-bottle by breaking off the lower two-thirds.

The urine, diluted with four or five times its volume of distilled water, is placed in the lower bulb, the cubical contents of which must be previously determined by filling it with quicksilver and weighing the amount contained. The stop-cock between the two bulbs is then closed and the upper bulb filled with the reagent, which is prepared as follows. Dissolve 100 grammes of caustic soda in 250 cubic centimetres of distilled water. Wait till the mixture becomes cool, then add 25 cubic centimetres of bromine. Shake and let it stand over night.

The upper bulb and the cup above it being filled with the reagent, a measuring glass graduated to cubic centimetres, also filled with the reagent or with distilled water, is inverted over the upper end of the tube which projects through the bottom of the cup.

The stop-cock between the two bulbs is then opened, and the diluted urine being specifically lighter than the reagent rises and mixes intimately with it. Decomposition of urea takes place at once, and the nitrogen gas set free rises and collects in the measuring glass, where its amount can be determined by the ordinary methods of gas analysis. The quantity of urea contained in the known volume of urine can then be calculated by a simple chemical proportion. Greater accuracy may be attained by warming the apparatus while the reaction is going on. This produces a more complete decomposition of the urea, but the reagent is also decomposed with the liberation of oxygen. The mixed gases must, therefore, be collected over mercury and subjected to a regular analysis.

The great advantage of this method is the rapidity with which the analysis can be performed.

Cancroid of the Œsophagus.—Dr. Fitz showed a specimen of cancroid of the œsophagus, seated at the lower third, not encroaching upon the stomach. Trachea and bronchi also free from disease. The mesenteric glands, at the root of the mesentery, were converted into a mass of diseased growth as large as the closed fist. The œsophagus was almost entirely destroyed by the tumor, and food was obliged to pass for a considerable distance over the cancroid. A softened cavity existed behind the wall of the stomach, in the diseased growth, as large as a plum; from this a free opening into the cavity of the stomach existed, a quarter of an inch in diameter. The mucous membrane bordering this opening presented no evidence of infiltration.

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[*] Klin. Mon., 1868, p. 17.

[†] Jour. für prakt. Chemie [2], Bd. 3.

[‡] Unterbromigsaures Natron.

The specimen was of unusual interest from the fact that generalization had occurred, there being small secondary nodules in the lungs towards the periphery. Of still further interest was the fact that a large nodule, of the size of a peach-stone, was found at the upper posterior portion of the right ventricle, partially imbedded in the muscular wall, projecting some three fourths of an inch into the ventricular cavity. Till within comparatively few years, this form of disease was considered as having merely a local malignity, yet here was a case where there was not only infection of the neighboring lymphatic glands, but also of the lungs and heart, suggesting mechanical metastasis into the course of the circulation, as there was no evidence of disease of the lymphatics leading from these organs. In Förster's Pathological Anatomy, only two cases of cancroid of the heart were mentioned.

Dr. Fitz stated also that, while in Berlin, he had seen a similar case of generalized cancroid, the primary seat of disease having been in the uterus. Secondarily, the lumbar lymphatic glands and the liver were similarly diseased.

Dr. Ellis remarked that the case was interesting in a clinical point of view on account of the resemblance of the symptoms to those of chronic ulcer, viz., vomiting almost immediately after eating such large quantities as to show that the food had entered the stomach, hæmatemesis, and pain between the scapulæ.

There was also marked cirrhosis of the liver, without the usual symptoms, and diseases of the kidneys, with many casts in the urine. This was the second case Dr. Ellis had met with.

Dr. White asked if Dr. Fitz considered "metastasis" necessary for such propagation of disease.

Dr. Fitz said, Virchow considered the generalization of tumors to take place in, mainly, three ways; by direct filtration of fluids through contiguous tissues or by means of lymph or by bloodvessels. In malignant tumors tending to degenerate, as sarcoma, small secondary nodules are often found on the folds of the mesentery, theoretically explained by particles gliding down the mesentery and becoming fixed at the angle of junction.

Dr. White alluded to Virchow's theory of syphilis as originally a local primary disease followed, by metastasis, by other appearances as sequelæ.

Dr. Hay remarked that in children, glioma of the brain occurs so often that there is but little chance of saving the child's life by removing the glioma from the orbit.

Dr. Wadsworth attributed the lack of success to deferred extirpation, since the child cannot and the parents do not notice the trouble until too late. Very early extirpation, when the optic nerve is not involved, he considered would give a fair chance of life.

Dr. Hay desired to refer to metastatic formation of glioma in parts distant from the primary seat, such, for instance, as in the first case reported in Knapp's "Intraocular Tumors," where there was congenital glioma of the retina, without the optic nerve being affected, but with metastasis in the liver, lungs and diploë of the cranial bones.

Dr. Ellis wished to know if the dictum of metastasis applied also to tubercle.

Dr. Fitz said yes, whether by local infection as in cases of so-called solitary tubercle of the brain and supra-renal capsules, or by general infection as in acute miliary tuberculosis. In the first case the tubercle may be large, with miliary ones around it, and grows by local malignity.

It has been asserted of late that migratory cells push out and form nuclei for secondary nodules, which view explains the case quoted by Dr. Hay, in which there was no disease of the optic nerve, the cells having passed through the nerve and located themselves in the brain.

Mentality of Vision.—Dr. Hay offered an analysis of what takes place in ordinary normal human vision, distinguishing three elements, all of which are contained in the complete act. First, the reception on the retina of an optical impression of a certain extent, color, and perhaps motion, and the transmission of this impression, modified, it may be, along the optic nerve, the person being supposed to be looking at the object. Second, a consequent mental idea of an object of a certain position (form, size, distance) and color; and indirectly of the consistence, &c., this idea being more or less complex according to the development of the individual.

But these two parts are not enough to constitute *seeing;* a third is necessary; for instance, when one says he sees a tree, he not only receives the optical impression and has in the mind the idea of a tree, but he also *believes* in the existence of an external object corresponding to this idea, and at which he thinks he is looking.

It is no part of this communication to consider the nature of ideas or of belief, nor how the ideas and belief consequent on the optical impression on the retina are brought about; how, for instance, the idea of three dimensions is occasioned by a retinal impression involving form, color, and often motion, and accompanied by certain corresponding muscular efforts subservient to the proper direction and focussing of the eyes; but it is only proposed to distinguish in the ordinary normal act of vision the three elements, reception (of the optical impression), idea and belief.

If it is objected that other ideas than of position and color, such as that of consistence, do not properly make part of vision, it may be said that as vision results from the mind and eye being in relation with each other, it depends in part on the mind, and, therefore, that idea which the mind may have originally obtained through other channels than the eye, may yet make part of the complex act of vision.

The thing seen is then either an *idea conceived* or the *real object believed in;* and seeing is conceiving and believing, *consequent upon* the reception of an optical impression.

We might say that the retina feels the focal retinal impression, but the latter is different in size and in its inversion from what we see, and is only one stage of the process by means of which we come mentally to see.

As to variations from the normal process, setting aside those in the formation and transmission of the retinal impression, there may arise an idea inconsistent with the outward object, and this incorrect idea might, or might not, be believed in. For instance, with paralysis of one of the external ocular muscles, a false idea of two objects, when there is but one real object, arises. The error, however, is generally, though it might not always be immediately, recognized. Again, one might be deceived by looking at a mirror. In such case, an erroneous idea (of a real object behind the mirror) would be temporarily believed in.

Or, again, an idea corresponding truly to the object might present itself and for a time not be believed in. For instance, if a person supposed to be dead should suddenly pass rapidly by us; here we have a retinal impression and the right idea corresponding to it would present itself. But so long as we supposed the person to be dead, we should not say we had seen him, at least with ordinary vision; we should say we had seen some one extremely like him; that is, belief that the object is there, is essential to what we mean by the expression seeing an object.

Dr. White considered Dr. Hay's conception of vision too general, in fact vision plus ratiocination. Dr. James held that it included perception. Dr. Dwight, the same, adding that if perception is once admitted all general sensations might come under the same classification. Dr. Ellis held that if no mental quality is needed, then a photographic plate sees.

Dr. Jeffries considered that observers now divide seeing and perception, that is perception and judgment; that Dr. Hay's last division was judgment founded on experience and dependent upon recollection; that, as such, it could exist in a person born blind and would depend upon the sense of touch.

Dr. Bowditch added that such ideas of objects obtained from touch vary greatly from the mental picture obtained by sight, and cited the case of a young man born blind, who subsequently obtained his sight, and was then unable to recognize familiar objects, his dog and cat, for example, until he had felt of them, the tactile impressions not having created visual ones. Having once satisfied himself, by feeling, however, he distinguished them subsequently by sight.

Rapidity of Transmission of Nerve Force.—Dr. Bowditch then showed some tracings on smoked paper of curves marking the rapidity of the vibration of a tuning-fork, and said that the rapidity of transmission of nerve force might be determined by myographic experiments in the following way. The tendon of an excised muscle is attached to a lever, the finely pointed extremity of which rests against a rapidly revolving cylinder covered with smoked paper. As long as the muscle is at rest the point of the lever draws a horizontal straight line round the cylinder, but when the muscle contracts, the point describes a curve on the surface of the cylinder, the height of which above the horizontal line is proportionate to the amount of contraction of the muscle.

The nerve supplying the muscle is irritated first at a point near where it enters the muscle, and afterwards at a point as far as possible from the first point, and the time which elapses between the giving of the irritation and the commencement of the contraction determined in both cases.

For this purpose, a projecting metal point on the axis of the cylinder is made to open an electrical current in the primary coil of an induction apparatus, and the momentary current induced in the secondary coil is used to irritate the nerve.

The cylinder has therefore at every revolution the same position at the moment when the nerve is irritated, and the curves of muscular contraction will coincide when the time elapsing between the irritation and the commencement of the contraction is the same.

Now it is found that the two curves obtained by irritating the nerve at the above-mentioned points do not coincide, but are separated on the cylinder by a distance which is the measure of the time occupied by the nerve force in passing between the two points. To obtain the value in time of this distance it is only necessary to know the rate at which the cylinder revolves. This is determined by allowing a tuning-fork, vibrating at a known rate, to record its vibrations on the revolving cylinder. We have, then, as the data of the problem,

I. The length measured on the cylinder of one vibration of known duration, for example, 01″.

II. The distance measured on the cylinder between the commencement of the two curves of muscular contraction caused by irritating the nerve at two different points.

III. The distance measured on the nerve between the two points thus irritated.

From these three data the rate of transmission of nerve force can be calculated.

Let A = length in mm. of a vibration of ·01″ ;

Let B = distance in mm. between the commencements of the two curves ;

Let C = distance in cm. between the two points irritated.

Then $\frac{AC}{B}$ = distance in metres travelled by the nerve force in 1″.

Dr. White asked if the rapidity of nerve force could be properly measured by means of a circle of persons holding hands.

Dr. Bowditch responded that it could. The time required to pass a hand pressure round the circle diminishes by practice, for a while, but a limit is soon reached, and then about the same time is occupied each time that the experiment is tried.

Selected Papers.

ON THE DIFFERENT FORMS OF PNEUMONIA.

By H. C. Wood, Jr. M.D., Clinical Lecturer at the Philadelphia Hospital.

Like many other affections, pneumonia occurs both in an acute and a chronic form, though, as we shall see directly, what is called chronic pneumonia is often rather the result of acute pneumonia than a distinct, true inflammatory disease. The amount of cellular tissue between the air-sacs is so small, the union of bloodvessel, nerve and cells is so close, and the cavities of the air-vessels are so ready to receive secretion, that it is *a priori* inconceivable that an acute inflammation should occur which should confine itself to the inter-vesicular tissue, and whose exudation should be poured out into the walls—not into the cavities—of the air-sacs ; and, as clinical observation bears out this anatomical inference, we are justified in our first assertion, that in all acute pneumonias the exudation takes place into the air-sacs.

A thought as to the anatomical structure of the lungs will at once show what the nature of such exudation must be. The bloodvessels abounding everywhere pour forth the exudation material of inflammation—fibrinous serum—which soon coagulates and forms the major part of the matters filling up the air-sacs. At the same time with this fibrinous serum no doubt white blood-corpuscles escape, and the epithelial cells lining the air-sacs, responding to the general irritation, multiply, so that under the microscope the exuded material is seen to be made up both of fibrinous filaments and cellular elements.

In most inflammations, as is well known, there are two diverse possible exudations, whose nature is largely determined by, or at least associated with, a certain condition of the general system.

Thus, pleurisy in a debauchee produces a profuse serous exudation, while in the strong man it plasters the membrane with lymph. The same thing occurs in pneumonia. In the vigorous adult the exudation, even as first poured out, is almost a jelly, while in the old or prematurely broken-down it is a thin liquid, giving origin to the so-called prune-juice sputum.

There can be no doubt that in these different forms of ordinary fibrinous pneumonia the proportion of the cell-element varies in the exudation; yet it is always a subservient, secondary part of the exuded material.

There is, however, a third form of exudation, in which the cellular element predominates, and whose character is due not so much to any recognizable condition of the system as to the anatomical construction of the lung.

Remembering that the lining membrane of the bronchial tube is continuous with that of the air-cells, and bearing in mind also the tendency which all inflammations have to travel along a tissue or membrane affected rather than to pass to the diverse tissues upon which such membrane rests, you will see at once that *a priori* we would expect to find a form of pneumonia whose origin should be a catarrhal or epithelial inflammation of the bronchial tubes, and whose anatomical characters should be catarrhal rather than fibrinous, or, in other words, whose exudation should be composed chiefly of imperfectly-developed epithelial cells or mucous corpuscles. It also seems to be an anatomical necessity that such disease should at first affect small isolated portions of the lungs, as the minute lobules, although by the coalescence of these the whole lobe of a lung may at last be consolidated. Every bronchial tube has subject to it as it were a certain territory of lobules, forming, it is evident, in regard to a bronchial tube of any size, a triangular mass, whose apex is the tube in question, its base the outer portion of the lungs.

Clinical observation has continually demonstrated that in children this form of acute pneumonia is exceedingly common. * * * * * It is rare in adults; partly, no doubt, because the development of activity of the child is greater than that of the adult, and the epithelial tissues partaking of this excessive developmental power are more ready for that rapid production of cells which we call catarrhal inflammation, and partly because the formation of such pneumonic consolidation in the child is often due primarily not so much to a passage of the inflammation from the bronchial tubes to the air-vesicles as to a collapse of the latter from the child's want of power to expel the secretions of the bronchial tubes and to the anatomical changes consequent on such collapse. In the adult, collapse of the lobules of the lung from such cause is so rare, except in certain low fevers, that it may be practically said not to occur. * * *

Ordinary pneumonia—that which is known by the German as croupous, by the French as fibrinous—is normally a cyclical disease, in which, at the end of a period varying from three to seven days, the exudation being completed, there is a sudden fall in the temperature and abatement of the general symptoms, the patient entering as it were upon convalescence, or at least a period of repair, with the road to health open to him only by the freeing of the vesicles from their contained exudation. As the little plugs that fill the air-sacs are mostly much larger than the openings into the bronchial tubes, it is necessary that the exudation matter should be softened if it is to be expelled or absorbed. Rindfleisch believes that but a comparatively trifling portion of the exudation is absorbed, and that nearly all of it is cast out by expectoration. But, from clinical observation, I think that absorption bears a very much more important part in the removal of the exudation than this. However this may be, there can be no doubt that both absorption and expectoration aid in the removal, and that to facilitate these the fibrinous plug undergoes two distinct changes—one a fatty degeneration, the second the conversion of the fibrinous filaments into a soft gelatinous mass, chemically allied to mucin; and that while this is occurring there is a free formation of cells upon, and, to some extent, even within, the alveolar walls. If matters progress favorably after the exudation is softened, it is gradually removed by expectoration and absorption, so that at last the lung is free and the patient well. Unfortunately, however, not always does the disease end so favorably; for, instead of resolution following exudation, the latter may remain unchanged, and the result be, first, chronic pneumonia; or, secondly, suppurative changes in the lungs may occur, and the so-called gray hepatization be the result; or, thirdly, caseous degeneration may ensue, and the so-called infiltrated tubercle result; or, fourthly, gangrene of the lung may take place.

The anatomical cause of the chronic pneumonia remaining appears to be simply the failure of the ordinary changes to occur. The fibrin does not undergo change into mucin, and the cells seem simply to shrivel away, but not to be in sufficient quantity to cause disintegration of the entire mass. Why these changes fail to occur I do not know. Possibly there is something in the original constitution of the exudation which interferes; possibly the ancients were not altogether wrong in their belief in the absorbents playing an active part in the physiological and pathological economy. * * *

Niemeyer makes no distinct allusion to it in the article in his Practice upon Pneumonia. Jaccoud, however (Traité de Pathologie interne," tome ii. p. 49), describes it very distinctly. He states that there are two forms of it: one in which the arrest of the acute process seems to occur at the end of the stage of exudation; the other in which it takes place during the period of liquefaction and absorption. He says that in the first case the lung-tissue is compact, homogeneous, impermeable, vaguely granular. The appearance is very much that of the acute disease, the only difference being in the color and contained liquids; the hyperæmia has disappeared, and the color become slaty-gray, with black spots, due to the deposition of pigment granules; the absorption of the liquid is total, so that the tissue is dry and condensed. In the other case, the aspect of the lesion is different: it does not form a compact mass all in one block; the permeability of the lung is established in places, and the alveolar cavities contain some fibrin, dried and fatty purulent globules, and atrophied alveolar cells: the breaking down of the exudation has taken place, but the elimination has been arrested.

Of the second of these forms I know nothing from experience; the first I have seen repeatedly. How long this form of chronic pneumonia will endure I do not know, but I have seen many cases in which the history pointed to its having existed for a long time. It is probable that in many instances it finally causes chronic interstitial pneumonia, and, at last, contraction and a cirrhotic condition of the lung, or else ends in caseous degeneration. That it often does not do so for a very long time—that patients far advanced in life die, and portions of the lungs are found affected with chronic pneumonia, whose origin is obscured in the far past and whose existence was not expected during life—I most certainly know. * * *

The second termination of pneumonia in our schedule is in diffuse suppuration, if such term is allowable—that known as gray hepatization. * * * It is always to be feared in any case when the sudden fall of temperature—the crisis—fails to develop, or, developing itself, fails to persist, and, at the same time, very low typhoid symptoms are manifested; and especially is the danger imminent when along with these symptoms coarse moist râles are to be heard in the affected lung. Some authorities ascribe importance to distinct chills or repeated slight shiverings as diagnostic of the formation of pus in the lungs. * * *

Now, what are the anatomical differences between the processes of resolution and gray hepatization? It must be borne in mind that in cases of resolution during the time when the exuded material is being removed there is a free formation of cells in the epithelium lining the air-sacs, and that there is also a tendency to over-rapid cell-increase within the alveolar walls. Now, in the degeneration of which we are speaking, this tendency being exaggerated, cell-multiplication takes place in both of these positions with great rapidity. Within and without the walls of the vesicles cells multiply. More than this, I am convinced, though not in a position absolutely to affirm it as proven, that in all these cases from the very onset the inflammatory products are largely cellular; that the exuded material is very poor in fibrin and rich in cells; that, in other words, the affection approaches closely the catarrhal type. The sputum in such cases certainly indicates it; and it is inconceivable that a mass composed chiefly of fibrin filament should be changed into a purulent, cellular liquid.

However this may be, excessive cell-multiplication—a multiplication so rapid that reproduction takes place at the expense of vitality—occurs on and within the walls of the alveoli of a lung about to undergo the purulent degradation. Under its influence the parenchyma of the lungs swells up and becomes more dense and heavy. At the same time the granular appearance which the filled alveoli produce in the red hepatized lung becomes less marked, from the swelling of the alveolar walls, and the color changes from reddish to whitish or yellowish. This alteration of the color is evidently due in some measure directly to the rapidly increasing cells within and without the alveoli, but chiefly to the pressure which they exert upon the bloodvessels, preventing the passage of blood into the affected tissues, which therefore become exceedingly anæmic.

The degeneration of these cells into pus or pus-like globules is of double origin. In the first place, their own native want of vitality facilitates their death; but I believe an even more important factor is the pressure which they themselves exert, cutting off their supply of blood—*i. e.* of nutriment—and causing death by starvation. I want to lay stress upon this point, because this purulent degeneration of the lung is the same in kind as the caseous degeneration—the so-called infiltrated tubercle—caused by the same anatomical changes, only that in the one case the course is rapid, in the other slow; in the one the cells multiply quickly, drive out the blood, and produce rapid local death, with exudation of more or less serum; in the other the cell-multiplication is slower, the blood-current is more gradually lessened, the death takes place more slowly, and is accompanied with desiccation. The two cases bear almost the same relation to each other that the moist gangrene which follows sudden arrest of circulation does to the dry gangrene caused by atheromatous arteries. * * *

It is in cases of cellular exudation especially that the last termination of acute pneumonia of which I shall to-day speak is especially apt to occur—that which was formerly known as acute infiltrated tubercle.

There is in such cases of pneumonia, from the very outset, an intense and rapid multiplication upon the alveolar walls of the epithelial cells, which, accumulating more and more, at last entirely fill up the alveoli affected. It is self-evident that such an exudation is not nearly so easily gotten rid of as a fibrinous one. The latter may soften and break down into a mucoid mass, but cells do not do this readily. More than this, the tendency to reproduction of cells does not confine itself to the epithelial tissue, but affects also the inter-alveolar tissue, until at last a solid mass is formed, the cells within crowding those without the alveoli. As a result, pressure upon the bloodvessels is exerted, until their calibre is obliterated or the current in them stagnated and the supply of blood to the part is cut off. What then happens? Death of the part affected. The deprivation of blood is, however, gradual, not sudden, and the death is slow. The cells in the interior of the alveoli are the first to suffer, because they are the farthest removed from the nutritive supplies; having from their very birth a tendency to fatty degeneration, they slowly undergo it, and at the same time shrivel up under the pressure, which squeezes out of the tissue the fluids contained in it. Even with the naked eye the change can be marked, commencing as a whitish spot in the middle of a dark mass of consolidated tissue, and spreading from within outwards. * * * *

The degeneration of the cells of the affected part, continuing, spreads from the centre of an alveolar cavity to the alveolar walls, which are soon involved in the common death. Then from the portions of lung not yet affected serum begins to be thrown out, and to permeate the mass, until at last the whole diseased tissue breaks down, melting away alveolar walls and all, and a cavity results.—*Philadelphia Medical Times.*

Medical and Surgical Journal.

Boston: Thursday, January 25, 1872.

THE ETIOLOGY OF TYPHOID FEVER.

Disease makes no discrimination of social position in its selection of victims, and, other things being equal, prince and peasant are in this respect identically human. The very serious and at one time alarming seizure of typhoid from which H. R. H. the Prince of Wales is at present convalescing exemplifies this equality; but while the mode of attack, the natural course of the disease and its complications have in no essential particular differed from what might have fallen to the lot of the meanest of the heir apparent's prospective subjects, the high position of the royal patient has stimulated a rigid investigation into the conditions which may be regarded as causative of the attack and has suggested renewed discussion of the subject in its general bearings. Medical commissioners were despatched to Londesborough Lodge, where the Prince was thought to have contracted the disease, and it is curious to observe the unanimity which characterizes the results of the inspection, as they are reported in recent English medical journals. A single quotation from the *Lancet* will serve as a sample of the opinions expressed.

"The most damning fact is that two healthy persons (the Prince and Lord Chesterfield) should have been attacked with typhoid fever, the only history common to them both being the circumstance of their having occupied the same bed-room in successive weeks, that bed-room being placed on the summit of a closed sewer with nothing but a few inches of water to protect the sleepers from the probable source of their disease."

Without at present criticizing the justice of such conclusions (which, by the way, reflect pretty clearly the prevailing English theories on the causation of typhoid), we may observe that no one can deprecate the importance of such investigations as those alluded to. If the causes of enteric fever are preventible, the profession and the public in general have an obvious interest in knowing the fact, and the researches of such men as Pettenkofer and Budd and Murchison possess an important practical bearing. We are glad to note any inquiries, therefore, which tend to throw light on this long-discussed subject.

In this connection, we quote from a recent number of the *Medical Times and Gazette* an article which is in direct relation to this important matter, and which also shows in what high esteem the labors and organization of the Massachusetts State Board of Health are held abroad.

At a time when the serious illness of the Prince of Wales from enteric fever excites such a degree of public anxiety as now exists among all classes, and renders that disease, its probable causes, and usual course a subject of conversation in almost every household, it may not be inopportune to devote a small portion of our time and attention to this subject. In the Second Annual Report of the State Board of Health of Massachusetts (published in January of the present year), among other very valuable papers, we have lately read with great interest an inquiry into the causes of typhoid fever as it occurs in Massachusetts. * * * The general result of the study as to its causes, on the opinions of the medical world, has been to encourage the belief that in some way typhoid fever and filth stand in certain relations. The disease is supposed to be propagated by a poison as definite as that which causes vaccine disease. The vehicles through which this poison has been supposed to be conveyed into the system are various:—1st. Drinking-water made foul by the decomposition of any organic matter, whether animal or vegetable, but specially by excrementitious matters discharged from the bodies of those already suffering from the disease. 2d. Air contaminated by any form of filth, but specially by privies, cesspools, pigstyes, manure heaps, rotten vegetables in cellars, leaky or obstructed drains. 3d. Emanations from the earth, occurring especially in the autumn months and in seasons of drought.

The first of these causes the compilers of the Massachusetts report consider to be essentially English. They state that, in reading the reports of typhoid epidemics occurring in England of late years, it so far predominates over all other imaginable causes, that they are led to believe either that the English drinking-water must be exceptionally dirty, or that medical advisers are unconsciously influenced by preconceived opinions, based upon the ingenious speculations of men of ability who have directed their attention to this form of danger. The American experience on this point seems to be, that while in some instances the evidence collected from various sources was so definite as to leave no doubt that the fever poison *was* received through drinking-water, in others, in which towns have lately been supplied with perfectly pure water, the consequent diminution of typhoid was not to such an extent as might have been expected, supposing impure water to have been the principal source through which the disease was spread. The diminution was only such as might have been looked for if the purification of air rather than of water were in question. The sewerage was improved by the drains being enabled to carry away impurities which would otherwise have lodged. The sewers are more thoroughly washed—and the people too. Cases are reported in which it is impossible to doubt that the disease was received by absorption through the alimentary canal; but in the great majority of cases occurring in Massachusetts in which the causes could be traced, *air*, and not water, must be regarded as the vehicle.

We now come to the second class of probable causes of typhoid—viz., propagation by air contaminated by filth. There is reason to suspect that the fever-producing poison is odorless, and that, under certain circumstances, it may be set free from decomposing substances before the foul-smelling compounds of hydrogen come to give us warning. Hence the danger may be greatest when decomposition is going on under difficulties—when it is impeded, suppressed, or imperfect. When the rotting material is *under cover*, whether in a cellar or in a drain, with a far less noticeable odor accompanying it than is often met with in the open air, or with no perceptible odor, the most disastrous consequences have been observed. As yet we ask in vain from organic chemistry what is that certain something which putrefying material gives forth under such circumstances.

The third class of causes of typhoid may be considered under the head of emanations from the soil. Soil seems at certain seasons to afford the conditions requisite for the concoction of this subtle poison, and air to be the vehicle by which it enters the body. The exposure of the bottoms of ponds and reservoirs during the season of heat and the season of decay is. of all others, the most frequent single cause assigned for the production of epidemics of typhoid fever in Massachusetts. A rich surface-soil with a sub-soil of clay has been remarked as seeming to co-exist with typhoid. Rock under a rich clay, preventing the subsidence of decaying matters beyond a certain point, where they would meet the constantly-moving current of sub-soil water, also seems likely to exert an influence in favor of the production of typhoid.

The views of Pettenkofer, that epidemics of typhoid fever stand in a fixed relation to certain obscure and as yet inexplicable changes in the soil, which changes are signalized by fluctuations in the height of the ground-water, have been interpreted in England to mean that in seasons of drought foul matters are retained in the loose soil, and that the area of drainage for each well is greatly increased by the subsidence of the ground-water level. In certain English towns the water-level was permanently reduced by artificial drainage, while pure water was brought in from springs and streams for the use of the inhabitants with a marked reduction in the mortality from typhoid: Pettenkofer, however, believes that the soil must be "typhoid ripe" before the disease will appear. While admitting the general importance of having drinking-water free from taint, he thinks that the artificial drainage of English towns signifies no more as regards typhoid fever than the movement of the face of a clock by human hands would influence the rotation of the earth. Setting the soil-clock at typhoid will not cause the disease. Filth will foster and increase its virulence, but will not produce it.

It may thus be seen that all the causes assigned, with the single exception of such changes as may occur in soil through natural processes, are under human control. They are, indeed, instances of human neglect, and, standing in the relation they do to one of our most destructive diseases, they but enforce the truth of the general statement, that clean air and clean water are among our greatest blessings.

Such are some of the conclusions of the compilers of the Report of the Massachusetts Board of Health, and they are true in England as in America—it would be well that the general public of this country were more thoroughly acquainted with them. And we would here observe that the Report in which they are contained is addressed by the Massachusetts Board of Health, not only to the medical profession, but to the general public, and that the paper from which we have so freely quoted, as also all the others contained in the report, are written in simple, non-technical language, perfectly intelligible to anyone of ordinary mental capacity. The example is worthy of imitation in our own country.

Criminal Abortion.—We are glad to note an increasing inclination on the part of the profession to put, so far as may be, some effectual restraint on an evil whose enormity admits of no cavil. The subject of its legal punishment and of the measures best adapted for its repression has occupied the attention of a commission of the New York Medico-Legal Society, and the New York *Medical Journal* contains in its current number a full report of the results arrived at, with suggestions of certain amendments to existing laws in New York. In addition to statutes which already punish the "wilful killing of an unborn *quick* child by any injury to the mother" as manslaughter, and the procuring of any drug or agent, by any pregnant woman, with intent to procure miscarriage as a "misdemeanor" (certain exceptions being made in behalf of the life of the mother), the following act is recommended to remedy the defects in the existing law, the crime being made a capital felony and the minimum of punishment only stated:—

Section 1. Any person who shall administer to any woman with child, or prescribe for any such woman, or advise or procure her to take any medicine, drug, substance or thing whatever, or shall use or employ, or advise or procure her to submit to the use or employment of any instrument or other means whatever, with intent thereby to produce the miscarriage of any such woman, unless the same shall have been necessary to preserve her life or that of such child, shall, in case the death of such child or of such woman be thereby produced, be deemed guilty of a felony, and upon conviction shall be punished by imprisonment in a State-prison for a term not less than four years.

In a communication to the Dublin *Medical Press and Circular*, a recent writer indulges in a curious study to prove that the discovery of the circulation of the blood is of a date long anterior to the time of Harvey. After commenting on the attempt of Dr. McKeogh to demonstrate Plato's knowledge of the circulation, the author discourses of a still more ancient physiologist. "The wise man," he says, "who averred that there was 'nothing new under the sun,' in his book of Ecclesiastes (xii. 6), speaks not only of the 'silver cord,' or spinal marrow, nor only of the 'golden bowl,' with its organ of thought; but he makes mention, also, of 'the pitcher at the fountain' and of 'the wheel at the cistern.'" These expressions, on account of their analogy with Plato's phraseology, are supposed to possess an important physiological meaning, however hidden, and to point to a knowledge of the circulatory system, a part of the human economy of which Harvey has the honor "not of discovering, but only of being the first to scientifically describe."

A Novel Appliance to Maintain Uniformity of Temperature in the Treatment of Disease.—Dr. Robertson, of Glasgow, utilizes rubber in the following manner for the purpose of securing and maintaining a higher or a lower temperature on the surface of the body. The apparatus consists of rubber bags whose shape is varied to conform to the surface on which it is to be used; within these are a number of compartments partitioned so that a stream of water will freely flow through the whole series. A tube, with stopcock attached, is adjusted at each end of the canal, for the admission and the discharge of the stream. If, for any indication, dry heat is desired, the bag is applied directly to the part and a stream of hot water at the requisite temperature is allowed to flow from a faucet or from a reservoir through the compartments. If heat and moisture are wanted together, the bag is applied outside a poultice or an ordinary fomentation. The mode of securing uniform cold is readily suggested.

Dr. Robertson has tested his apparatus in various diseases of the respiratory organs, and in other affections, with gratifying results.—*British Med. Jour.*

Charcoal in Gastric and Enteric Disorders.—Dr. Rémy highly commends the use of vegetable charcoal prepared from the poplar after the process of M. Belloc. He exalts its efficacy as "truly marvellous" in the treatment of gastralgia, gastro-enteralgia, dyspepsia, pyrosis, the greater number of nervous affections of the stomach and bowels, and constipation. It is a valuable adjunct in the tonic treatment of gastro-enteric affections. In certain cases of dysentery it has also been found very useful, and in one such instance, reported by Dr. Farr, of London, its effect was very satisfactory in the form of enemata.—*L'Union Medicale.*

The following "declaration" respecting alcohol has been recently published in the British Medical journals. It is signed by two hundred and fifty-four physicians and surgeons, including some of the most distinguished names in the profession in Great Britain. Its appearance naturally excites much criticism.

As it is believed that the inconsiderate prescription of large quantities of alcoholic liquids by medical men for their patients has given rise, in many instances, to the formation of intemperate habits, the undersigned, while unable to abandon the use of alcohol in the treatment of certain cases of disease, are yet of opinion that no medical practitioner should prescribe it without a sense of grave resonsibility. They believe that alcohol, in whatever form, should be prescribed with as much care as any powerful drug, and that the directions for its use should be so framed as not to be interpreted as a sanction for excess, or necessarily for the continuance of its use when the occasion is past.

They are also of opinion that many people immensely exaggerate the value of alcohol as an article of diet, and since no class of men see so much of its ill effects, and possess such power to restrain its abuse, as members of their own profession, they hold that every medical practitioner is bound to exert his utmost influence to inculcate habits of great moderation in the use of alcoholic liquids.

Being also firmly convinced that the great amount of drinking of alcoholic liquors among the working classes of this country is one of the greatest evils of the day, destroying—more than anything else—the health, happiness and welfare of those classes, and neutralizing, to a large extent, the great industrial prosperity which Providence has placed within the reach of this nation, the undersigned would gladly support any wise legislation which would tend to restrict, within proper limits, the use of alcoholic beverages, and gradually introduce habits of temperance.

THE STATE LUNATIC HOSPITAL AT NORTHAMPTON.—From the sixteenth annual report of the Northampton Lunatic Hospital, we learn that the number of patients at the hospital on the 30th of September, 1870, was four hundred and five, and two hundred and eleven were received in the course of the official year, an aggregate of six hundred and sixteen, of whom two hundred and eighty-four were men, and three hundred and thirty-two women. One hundred and sixty-eight, of whom seventy were men and ninety-eight women, have been discharged; and sixteen men and twelve women, a total of twenty-eight, have died.

In his report on the condition of the patients, Dr. Earle makes these remarks:—

Dr. Falret, of Paris, has recently published, in the *Annales Medico-psychologiques*, an article upon the use of the bromide, of which I have seen no mention in any American medical journal. Dr. Falret is known, throughout Europe and the United States, as an eminent specialist in the treatment of insanity. He has had a field of observation, in that specialty, as wide as any which the world affords. As an authority, therefore, he is entitled to respect and confidence. In the article mentioned, he speaks of the complications or unfavorable effects resulting from the use of the bromide. These effects are, first, eruptions and other disorders of the skin; and secondly, cerebral effects disturbing the mind. As the medicine is very extensively used in hospitals and in general practice in this country, it may not be out of place or useless here to insert a translation of a part of this article.

Having mentioned the cutaneous eruption, Dr. Falret says:—

"This eruption, in some cases, becomes so considerable as to require the suspension of the medicine. Very severe upon the face and shoulders, it gradually spreads over the whole body. It is accompanied by other varieties of disease of the skin, and acquires such a degree of intensity, of irritation, and of itching, that the patients, even the most courageous, cannot bear it, and imperatively demand the discontinuance of the medicine. Finally, in some cases, boils, furuncles, or anthrax appear, and may mature to suppuration. All the means, however extreme, employed for the suppression of these eruptions, are often insufficient, and it becomes necessary, in order successfully to combat them, to suspend, at least for a time, the use of the bromide.

"The unfavorable cerebral effects have been less studied. They are more rare than the cutaneous disorders. They occur, however, sometimes to a degree of great intensity, especially in private practice. Following the use of the bromide, particularly in large doses, the intellect of the patient is depressed in a very remarkable manner. Memory is lost, and the individual sinks even into hebetude. In other cases, sleepiness and a comatose condition supervene, which may become alarming, and which indicate a sort of saturation, or of intoxication, consequent upon the accumulation of the medicine in the system. If these complications are observed, the use of the bromide should be suspended.

"I have seen, at Bicêtre, a case of sudden death from cerebral and pulmonary congestion, in a patient who was taking the bromide in moderate doses."

Dr. Earle gives in a concise manner an outline of the distinctive features of what may be called the types of the several methods of provision for the insane found in Europe, as observed by him during a recent visit, with the conclusions which have been reached from the experience he has gained from his observations abroad.

OVARIOTOMY DURING PREGNANCY.—At a recent meeting of the London Obstetrical Society, Dr. Eugene Goddard read the particulars of a successful case of ovariotomy during pregnancy. The patient was 29 years of age, and in 1870 was found to be the subject of an ovarian cyst, but, as there were no urgent symptoms, the consideration of any surgical treatment was deferred. She then became pregnant; and, about the end of the second month of utero-gestation, Mr. Spencer Wells removed the ovarian cyst. Eleven and a half pints of fluid were withdrawn. The clamp was removed, and the bowels acted on the eighth day. Pregnancy went on uninterruptedly, and a living child was born at the full period. Dr. Goddard said that the compound nature of the cyst precluded the idea of tapping, as also did the risk of peritonitis, suppuration of the cyst, and the formation of adhesions. Premature labor was not induced, because the patient was already beginning to suffer constitutional disturbance from the double burden, and it was doubtful whether, by the time a viable child could be born, they would not have assumed such magnitude as to imperil the patient's safety; whereas, if abortion were induced, the child would be lost and the tumor would remain.

Dr. Ross related a case in which Mr. Wells had operated under more adverse circumstances, as the lady was much broken down in health at the time of the operation. A small ovarian tumor was diagnosticated eighteen years ago. The patient was subsequently married, and Dr. Ross had attended her in four labors. In no instance was parturition attended with any serious difficulty. During gestation the tumor appeared to become smaller. The tumor rapidly increased about a year ago, and Mr. Wells removed it successfully, the patient being about two months pregnant.

Mr. Spencer Wells said that the existence of the cyst for eighteen years, and the pressure on its walls of hard bone-like masses, had led to the diagnosis of a dermoid tumor. He had performed ovariotomy four times during pregnancy, and all the patients had recovered.

Dr. Bantock said that the diagnosis of pregnancy at an early stage, complicated with an ovarian tumor, was not always easy. In considering the performance of the radical operation in these cases, one fact was worth any number of theoretical objections.

Mr. Scott referred to a case of ovariotomy which he had recently performed. The patient had passed through two labors at term in safety.—*British Medical Journal.*

THE following preamble and resolutions in regard to medical education were unanimously adopted by the Montgomery County (Ohio) Medical Society, at a late meeting:—

Whereas, The Medical Department of Harvard Unversity has introduced a new plan of medical education, by which the student advances by yearly steps, with an examination at the end of each year; and,

Whereas, From the fact that medical journals are almost universally appendages of medical schools, such changes as these, and the benefits evidently resulting from them, are not duly placed before the profession; it is, therefore,

Resolved, That we believe this plan of instruction a decided improvement on the plan generally followed; of great advantage to the student, and certain to prepare men better for practice; that as an associate body of private practitioners, without hostility to any college or institution, we hereby express our approval of the plan just introduced by Harvard, tender our thanks for what we sincerely believe to be a decided advance in the cause of medical education, and express our best wishes for her success under the new arrangement.

Resolved, That the Secretary be directed to furnish a copy to the medical journals of the State for publication, and a copy to the Dean of Harvard University.—*Cincinnati Lancet and Observer.*

CROTON-CHLORAL-HYDRATE.—At the recent meeting of German Naturalists and Physicians, Dr. O. Liebreich, to whom medicine is indebted for the introduction of chloral, called attention to the properties of a narcotic agent termed "croton-chloral-hydrate." It is made by passing chlorine into allyl; and is decomposed by alkalies into dichloride of allyl and formic acid, hydrochloric acid being also formed. The first effect of its administration to animals is marked anæsthesia of the head, while sensation is preserved over the rest of the body. Next, there is a general loss of reflex irritability, the pulse and respiration remaining unchanged. If a large dose be given, death is produced by paralysis of the medulla oblongata. The animal may be preserved alive by artificial respiration, the action of the heart remaining unaltered; whereas the final effect of chloral is to produce paralysis of the heart. That death arises from paralysis of the medulla oblongata in animals poisoned by croton-chloral-hydrate, is shown by the fact that contraction of the diaphragm is not produced by galvanism of the central end of the vagus, whereas it follows irritation of the phrenic nerve. When the animal has so far recovered that the breathing has become natural, then irritation of the central end of the vagus produces contraction of the diaphragm. The effects of this agent had also been tried on the human subject in the Berlin Hospital. In a child to which it was given, complete anæsthesia of the parts supplied by the trigeminus nerve was produced, while the reflex irritability of the rest of the body was retained. The pulse and respiration were unchanged in number throughout. Further researches on insane patients gave the same result; and Dr. Liebreich concluded therefrom that croton-chloral-hydrate has the property of inducing profound narcosis of the brain without interfering with the other organs; while a correspondingly deep narcosis produced by chloral is accompanied by general anæsthesia and by dangerous lowering of the heart's action. —*British Med. Jour.*

Medical Miscellany.

The following odd and suggestive stanzas are accredited to Richard Banister, a surgeon and oculist living in Stamford, England, two hundred and fifty years ago. They are copied from the London *Medical Times and Gazette.*

"A SURGEON DIVIDED INTO FOURE PARTS: OR THE SURGEON'S COMMENT.

"1. A Surgeon's like a God whom they adore:
When death about the sick man's bed doth sore,
Then he hath great respect and high regard,
Fed with the smoaky promise of reward.

"2. But as the Patient doth begin to mend,
So doth the Surgeon's God-head straightway end:
Yet such attendance on him still is given
As if he were an Angel comne from Heauen.

"3. When health and strength the Patients doth inspire
To sleepe, eat, walke, and sit vp by the fire:
Then strait the Surgeon's state Angelicall,
In their respect vnto a man doth fall.

"4. Last when the sick or sore are heal'd againe,
And that the Surgeon seekes reward for's paine;
Hee's neither counted God nor Angel than
Nor is he entertained as a Man.
But (through ingratitude) that hellish euill,
They bid the Surgeon welcome as the deuill."

Death of an Old Physician.—Dr. Richard S. Spofford, of Newburyport, died in that city last week, at the age of 83 years and 8 months. He took his medical degree at Harvard College in 1815, and began practice in Newburyport in 1816. He was an intelligent and skilful physician, always kind and attentive to the poor. He leaves a widow, two daughters, and one son who bears his name.

Dr. Nathan Johnson.—Dr. Johnson died in Cambridge City, Indiana, on the 4th inst., aged 77 years. He was born in Loudon County, Va. His field of practice during the last forty-five years of his life was in Leesburg, Ohio, and in Cambridge City, Indiana. He was a regular subscriber to this Journal during the last forty years.

United States Pension Office.—Dr. George Derby, of the State Board of Health, takes the place of Dr. J. W. Foye on the Examining Board of the pension office in this city. Drs. Horace Chase and J. B. Treadwell compose the rest of the Board. The office has nearly reached the maximum of its disbursements, paying as it does now about $400,000 a quarter to between 10,000 and 11,000 pensioners.

Among the losses by the Chicago fire, was included the volume of transactions of the Illinois State Medical Society for the last year. The work was nearly ready for distribution, but the entire edition was consumed together with a large part of the manuscript copy. The Secretary of the Society asks indulgence for the delay and for the maimed condition of the forthcoming edition, a request which will be readily considered with favor.

The City Physician, Dr. S. A. Green, reports only eleven cases of smallpox at present under treatment in this city.

A young man from Cardiff, named Howard, has drowned himself at Carlisle, who, in a memorandum, gave as his reason for self-destruction that the Darwin theory having proved men to be descended from monkeys, he did not desire to live. —*London Med. Times and Gazette.*

To Correspondents.—Communications accepted:—Neurasthenia.—Spindle-celled Sarcoma of Choroid; Removal of Eye.—Ventilation of Dwellings and Sick-Rooms.—Account of a Post-mortem Examination following Impalement twenty Years previous.—Trephining in Epilepsy.—Case of Criminal Abortion, followed by Pelvic Abscess.

Pamphlets Received.—Address by Thomas E. Vermilye, M.D., LL.D., at the opening of the Roosevelt Hospital (New York), Nov. 2, 1871. Pp. 27.—Anæsthetics. By Walter Coles, M.D., of St. Louis, Mo. Pp. 14.—Proceedings of the Second Annual Meeting of the State Medical Association of Arkansas, held at Little Rock, Nov. 5th and 6th, 1871. Pp. 39.—The Tribune Almanac and Political Register for 1872. New York. Pp. 104. Price 20 cts.—The Public Ledger Almanac for 1872. Philadelphia. Pp. 56.—Synopsis and Analysis of one hundred Cases of Lithotomy, Lithotrity, &c. By Paul F. Eve, M.D., Professor of Practical Surgery, Nashville, Tenn. Pp. 10.

Married,—Jan. 3d, Dr. Robert Albin, of Newport, Miss., to Miss M. C. Onsley.

Deaths in seventeen Cities and Towns of Massachusetts for the week ending Jan. 20, 1872.

Cities and Towns.	*No. of Deaths.*
Boston	113
Charlestown	16
Worcester	25
Lowell	12
Milford	5
Chelsea	2
Cambridge	14
Salem	10
Lawrence	12
Springfield	4
Lynn	11
Gloucester	4
Fitchburg	2
Newburyport	9
Fall River	13
Haverhill	3
Holyoke	1
	256

Prevalent Diseases.	
Consumption	44
Pneumonia	41
Scarlet fever	19
Croup and Diphtheria	7

Of four deaths from smallpox, two were in Salem, one in Boston and one in Holyoke. Of the deaths from scarlet fever, eight were in Worcester, six in Boston, and three in Salem.

George Derby, M.D.,
Secretary of State Board of Health.

Deaths in Boston for the week ending Saturday, Jan. 20th, 113. Males, 66; females, 47. Accident, 1—abscess, 1—apoplexy, 1—aneurism, 1—anæmia, 1—disease of the bowels, 1—bronchitis, 2—inflammation of the brain, 1—disease of the brain, 4—burned, 1—cancer, 3—cyanosis, 1—consumption, 18—convulsions, 4—croup, 1—debility, 3—diarrhœa, 1—dropsy of brain, 1—gastritis, 1—indigestion, 1—epilepsy, 1—erysipelas, 1—scarlet fever, 6—typhoid fever, 1—gangrene, 1—infantile, 4—disease of heart, 5—hæmorrhage, 1—laryngitis, 2—intemperance, 1—disease of the kidneys, 1—disease of the liver, 1—congestion of the lungs, 1—inflammation of the lungs, 19—marasmus, 2—old age, 2—premature birth, 3—peritonitis, 2—rheumatism, 1—suicide, 1—smallpox, 1—teething, 1—syphilis, 2—unknown, 1—whooping cough, 1.

Under 5 years of age, 47—between 5 and 20 years, 5—between 20 and 40 years, 26—between 40 and 60 years, 22—above 60 years, 13. Born in the United States, 79—Ireland, 25—other places, 9.

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Original Communications.

NEURASTHENIA.

By T. W. Fisher, M.D., Boston. Read before the Boston Society for Medical Observation, Jan. 15, 1872.

I will offer the Society a few notes upon a class of cases which, although frequent, are difficult to include under any definite name. They all exhibit a variety of symptoms due to functional nervous disorder, and are provisionally classed as cases of neurasthenia.

Case I.—Mrs. A., 30, married, with two children living. Was formerly treated by Dr. Bowditch for nervous dyspepsia and asthenia. When I first saw her, Oct. 17th, 1870, she was thin, pale and weak, but ambitious to keep about her household duties, in spite of increasing disability. The winter before, she had suffered from severe neuralgic headache in the frontal region, with hemicrania of the right side of the head, the pain extending to the neck. Was afterwards much troubled by palpitation of the heart, with mental agitation and fear of death. Sleep had of late been so interfered with that she feared insanity. The intellect was, however, clear, and the mind only disturbed by such apprehensions as are common with an irregular action of the heart. The eyes were bright, and the speech hurried, but nothing resembling hysteric crises were reported or noticed. Neither was there any settled gloom, but an alternation of feeling evidently dependent on variations in her physical condition. Was very susceptible, however, to the influence of moral causes, of which fact frequent advantage was taken in her treatment.

On inquiry and examination, found no reason to suspect any local organic disease of any kind. Suggested a more critical examination by Dr. Bowditch, but patient dreaded it, and it was not insisted on. Appetite was fair and digestion good. No constipation existed, and menses were regular. The menstrual flow had formerly been very abundant, but leucorrhœa had followed a diminution of quantity.

The most remarkable symptom noticed at this time was a small and quick pulse of 120, indicating an irritable state of the heart. Absolute rest in bed was not enjoined at this time. Elixir ferri phos., calisaya et strychnia, ʒi ter in die, was ordered, with chloral hydrate grs. xv. at bedtime, preceded by a mustard foot-bath. Free diet, with wine at dinner.

Oct. 24th.—No marked change. Patient wakes at 4 o'clock, A.M., with an intense headache, which persists till breakfast. It is sometimes cured by rubbing the forehead persistently. Hot water to the head relieves it, but the use of chloral at bedtime so distinctly aggravates it she cannot be persuaded to continue its use.

Oct. 29th.—Has had a mild attack of asthma, with catarrhal symptoms; pulse still 120. Ordered pills of zinci valerian. grs. ij., ext. belladonna gr. ½, morning and night.

Nov. 1st.—Came in town without permission yesterday, and felt very sick and confused, with dimness of vision. Find belladonna has produced dilatation of the pupils and suffusion about the eyes. Pulse 120, but volume increased. Headaches are worse of late. Rest in bed ordered. Tonic omitted. To take half a pill ter in die, with potass. brom. grs. xv., and extract. fl. valerian. ʒiij. at bedtime. Wine for luncheon.

Nov. 5th.—Sleeps better. No headache. Eats well; bowels regular; tongue, thin fur; pulse 110.

Nov. 7th.—Has dull headache in afternoon; pulse 108. Weak and dizzy on rising. Omit pills and resume tonic.

Nov. 9th.—Sleeps quietly and has no headache or palpitation. Pulse 120 again.

Nov. 12th.—Has athmatic dyspnœa in evening. Bowels getting costive. To use injections and resume pills, one half ter in die, omitting tonic.

Nov. 16th.—Asthmatic dyspnœa continues. Ordered the Espic cigarettes, composed of belladonna, hyoscyamus and stramonium in leaf, with extract of opium.

Nov. 19th.—Quite comfortable, except for asthma at night, requiring a semi-recumbent position and preventing sleep. At this time omitted all medicines previously ordered, and began a trial of liq. potass. arsenitis gtts. vi. ter in die, with ext. fl. hyoscyam. ♏xv. at bedtime, and repeat if required.

Nov. 26th.—Asthma at night gone. Sleeps better, and sits up in the forenoon.

Dec. 30th.—Improving in health and spirits. Up nearly every day. Pulse still 120.

Jan. 5th.—Had an attack of asthma after a short sleigh-ride. Relieved by inhalations from the atomizer of ext. fl. hyosc. ʒss., tinct. opii camp. ʒi., tinct. lobelia ʒss., in an ounce of water.

Jan. 12th.—Asthma entirely gone, but bronchi are filled with a copious secretion, which keeps patient awake by its rattling in chest and larynx. Relieved at once and entirely by ammonia chlor.-hyd. grs. x., glycerine and tinct. opii camph. āā ʒi., in an ounce of water, inhaled from atomizer.

Jan. 19th.—Asthmatic dyspnœa continues. Pain in head on awaking so intense as to make her unwilling to go to sleep. Omitted Fowler's solution, and ordered potass. brom. grs. xv., ammon. brom. gr. v., between meals and at bedtime; quinine gr. i. before meals.

Jan. 25th.—Better every way. Pulse 100. Has been to ride.

Feb. 18th.—Has had moderate dyspnœa and headache in the morning more or less for the past month. Increase the bromides one half.

March 7th.—Quite free from headache and asthma the past month. Sleeps and eats well. Goes to ride occasionally. Pulse 120.

March 13th.—Asthma returned with great severity last night. Much relieved by potass. iod. grs. x., tinct. belladonna ♏xx., spts. ammon. arom. ʒss., every four hours, inhalation of cigar smoke, turpentine stupes to chest and strong coffee.

March 16th.—Up and doing well.

March 24th.—Doing well. Pulse 80 for the first time since November.

May 1st.—Attack of asthma controlled as before. Pulse 120.

This patient spent the summer at Wolfboro', and was free from asthma. Had palpitation at times, but improved in health and spirits very decidedly. Was greatly discouraged by an attack of asthma on her return, in September. Was sent to Baltimore, Oct. 1st, to spend the winter, and was much cheered by the prospect of relief. Pulse 120, when she left Boston.

In a letter dated Jan. 15th, this patient writes:—"If it were not for my *nerves*, I should think myself almost well. I have no such terrible attacks of asthma as I had at home. I am pressed for breath very often, but have nothing so serious that my pastiles will not relieve. For the past three or four winters, I have had a cold and a cough most of the time, but this winter I have been entirely free from such troubles. I have gained 13½ pounds since I came."

In reviewing this case, it is necessary to notice first, the inherited tendency to nervous instability, the patient resembling her mother in this respect. There was, however, no special tendency to that form of functional disorder in the convolutions which we call insanity. A generally anæmic state was apparent, and had existed for some time, depending on a feeble nervous constitution and a menorrhagic habit, and, later, on maternity and its results. Nutrition had been impaired also, as shown in previous dyspepsia and loss of flesh. There was a condition of special nervous exhaustion, when first seen, due to voluntary over-exertion.

The asthma was a severe and persistent symptom, but the local instability of that disease seemed to arise from the general state of nervous exhaustion. This symptom was sometimes excited by exposure and accompanied by catarrhal signs, but at others occurred independently, as far as could be ascertained, of any such cause. Asthma is generally conceded to be a pure neurosis, dependent on a diathesis often transmitted from the parent. There is an instability of motor centres supplying the lung through the pneumogastric, which Handfield Jones compares to that of the medulla in epilepsy. There is in both diseases a tendency to reflex spasmodic action, excited by some evident sensory irritation, or by influences too subtle to be detected. That the vaso-motor centres share the irritation in both, is shown by the cerebral anæmia followed by congestion in one, and the dryness of the bronchi followed by copious secretion in the other. In fact, the latest theory assigns the primary disorder in epilepsy to the upper cervical sympathetic ganglion.

The heart's action in this case showed that its sources of nerve supply were also involved. The persistently rapid rate of the pulse, as well as the slight asthmatic dyspnœa, seemed to depend on continued nervous irritability, and not on any evident organic lesion of heart or lungs. The lower cervical sympathetic gives rise to the "accelerator" nerves, so called, and may have been efficient in keeping up the pulse, or moderate irritation of the pneumogastric may have produced the same effect.

The treatment was largely empirical, and is not put forward as a model by any means. Calculations of the causes of symptoms and of the effect of remedies were continually upset by the severe attacks of asthma, which demanded instant relief and necessitated frequent changes of treatment.

Case II.—Mrs. B., 30, widow. Always subject to sick-headaches, as was her mother before her. Is of a nervous, sanguine temperament, in very good flesh and color. Menses regular in time, but excessive in quantity. Had several attacks of diarrhœa in summer of 1869, during a vacation in the country, and has felt weak and spiritless since her return. Is seldom constipated. Menstruated Nov. 1st, and has had headache since, with complete anorexia and occasional nausea.

Find her in bed Nov. 6th, after a sleepless night. Complains of severe pain, confined, as usual, to a spot in left temple, generally worse in the morning, with sometimes tenderness of the scalp. Face neither pale nor flushed. Tongue has a thick white fur; temperature under it, 99⅘°. Pulse very slow, small and irregular, 45 per minute. Heart-sounds over aorta accented as follows: 1′—2—3—4′; and then as usual, 1—2′—1—2′. Had palpitation last summer, but none of late. On sitting up, pulse rose to 84, with more volume, but still irregular at frequent intervals. Ordered elixir ammon. valer. ʒi.

Nov. 7th.—Headache relieved. Says the elixir "takes the sharp edge off the pain." Pulse 76, and intermits every fourth or fifth beat. Temperature 100°. Ordered elixir ferri phos., calisaya et strych. ʒi. ter in die.

Nov. 9th.—Much better. Sits up. Pulse 76, and regular. To take Angelica wine at luncheon and for dinner.

Nov. 21st.—Has improved in strength and appetite, but has headaches every few days. Now in bed from a cold, with headache. Sleeps badly. Pulse 76 and regular. Ordered potass. brom. grs. xv. at bedtime every night, and double the quantity when headache impends. Has tried chloral hydrate, with aggravation of pain, and will not take it again.

Nov. 27th.—Gets no relief to headache from bromides. Omit tonic, and take pills of zinci valerian. gr. ij., ext. belladonna gr. ¼, 1 ter in die.

Dec. 29th.—Much improved, and is able to attend to business as instructress and book-keeper in sewing-machine establishment. Loses a day now and then from headache, which is always much relieved by the valerianate of ammonia.

This patient was quite well till spring, when whooping cough seized her and lasted through her summer vacation. Came to the city discouraged and unfit for business. Quinine, gr. i. before meals, was ordered. Rum and milk in the morning, a daily lunch of beef-tea or oysters, with wine at dinner, and ice cream during sick-headaches. Gained 18 pounds this fall, and is now quite well, except for occasional headaches.

The tendency to headache, with nausea, was inherited in this case. It was also fostered by various sources of cerebral exhaustion in the individual, both recent and remote. The attacks occurred under such a variety of circumstances as to make it difficult to assign any special exciting cause. They did not seem to depend directly on disorder of the stomach, the reflex irritation being as likely to end as to originate there.

The slow and irregular action of the heart was a marked feature for a short time, and may be attributed to an excessive cerebral irritation acting through the pneumogastric. This nerve, by its unexplained moderating power, seemed to act as brake upon the heart, at the same time disturbing its rhythm, as a car, to use a rough illustration, rubs and jumps along, when the brake is applied. On sitting up, the propulsive forces for a moment got the better of the retarding ones, and the pulse rose from 45 to 84. Whether this was due to change in the cerebral circulation from the new position, or to the equalizing effect of emotion which the patient exhibited just then, is doubtful.

Case III.—Mrs. C., æt. 55. Is of a full habit, and formerly had a menorrhagic tendency. Has had much domestic trouble, and for 15 years has been subject to spinal neuralgia and hysterical attacks. Has recently endured much fatigue and anxiety, in consequence of the departure of her family for Europe, leaving her alone.

Aug. 14th.—Was called to take charge of her in place of her own physician, whom she had ignominiously dismissed. Found her suffering from an aggravation of her former usual symptoms, with great mental disturbance superadded. Said she had been frightened by a person in the street, whom she dreaded to see. Last night, threatened suicide, in a frenzied way, and attempted to jump from the window. Chloroform had been used, by friends, at her request, and insistance to the extent of four or five pounds in twenty-four hours.

At the time of my visit, she was surrounded by sympathizing acquaintances, and was groaning and breathing noisily, as if in great agony. Looked wild and haggard. Wrings her hands and twists and writhes on the floor. Calls the attack "her spasms," and says her "rubbing doctor" always cured them easily. Complains of great pain at the sacrum and between the shoulder-blades. Find well-marked tenderness at these points. Tongue is furred, and complains of nausea. Vomits occasionally. Bowels said to be regular. Has at times an increased flow of urine, at others dysuria. Pulse 120, small and weak, as near as can be determined for the constant trembling and writhing of the patient. Ordered rest in bed, instead of the floor or lounge. Beef-tea ℥viij. every 6 hours in the 24, with capsicum grs. x. each time. At 10 o'clock, P.M., chloral hydrate grs. xxx., and grs. xx. if no sleep at 12. Rub back in rum and chloroform. Hot water to feet.

Aug. 15th.—Rather more quiet. Symptoms generally ameliorated, but has attacks of "spasms" whenever a new nurse or acquaintance appears. Sympathy of a certain kind calls out increased exhibitions of distress. Says she sees "faces," and that people are "hammering her back."

Aug. 16th.—Less nausea. No talk of faces, &c. Find patient has been using stimulants too freely by consent of friends. Has also managed to get too much chloral, and breathes the chloroform in her liniment. Change nurse again. Keep friends away, and lock up all medicines.

Aug. 18th.—Bears beef-tea well. Is slowly gaining. Sleeps moderately well. Cannot trust patient's account of herself at all. Has occasional "spasms."

Aug. 19th.—Another change of nurses; previous ones being afraid or unwilling to stay. Obtain one experienced in the care of the insane. Had a bad night in consequence of change. Omit capsicum. Ordered belladonna plaster to spine at tender points; also a pill of zinci valerian grs. ij., extract belladon. gr. $\frac{1}{4}$, ext. gentian gr. i., ter in die.

Aug. 20th.—Had a quiet night and slept tolerably well Eats well.

Aug. 21st.—Received a letter last evening, with disagreeable news. Became delirious, and tried to leave the house "to get into the pond, and stop the wheels in her head." Said she would kill the nurse if she did not let her go. Pulse 120. To receive no letters at present. Mustard foot-bath at bedtime. Egg, milk and wine at midnight, instead of beef-tea.

Aug. 22d.—Slept after second dose of chloral. Usually sleeps late in the morning. Wants and may have a beefsteak.

Aug. 29th.—No decided change the past week. Patient is wakeful and complains of pain in the spine at night, but sleeps by day. Chloral has but moderate effect, but refuse to increase the dose. Patient once gets the bottle and drinks an unknown quantity. Teases for narcotics and stimulants. Bowels regular; tongue clean; pulse 108, but easily raised by emotion to 120.

Aug. 30th.—Says she is better. Does not want to see friends till she is well. Omit pills, and give ferri pyrophos. grs. v., quinine gr. i. ter in die. Whiskey ℥i. every six hours in twenty-four. Warm bath at bedtime every other night.

Oct. 1st.—Quite well, except for weakness. Has been to ride. Expresses her gratitude for attentions of nurse and physician. Sent into the country.

Dec. 1st.—At home, and family returned, to whom she "says the thing which is not" in regard to her treatment. Complains of personal abuse, and of being forced to take stimulants and chloral against her will.

It will be noticed that the symptoms in this case, though differing widely from those in the others, are based on a similar condition of nervous exhaustion. The so-called hysteric attacks made their appearance before the turn of life, in connection with a menorrhagic tendency, which is often both a consequence and a cause of failure of nervous power. Menorrhagia perpetuates and aggravates the nervous debility in which it originates. Nervous exhaustion had been still further increased by domestic misfortune and losses of property, and the attack in question occurred under special fatigue, anxiety and fright.

In addition to the usual symptoms of spinal irritation, or spinal neuralgia, as it is perhaps more suitably called, there was an increase of the emotional disturbance amounting to mania of the hysterical form. It may be suggested that these symptoms were all dependent on uterine irritation, and that the mental disturbance was reflex. I am more inclined to look on this case and on others like it as due to bad nervous habits, set up and confirmed in nervous centres, which have been for a long time exhausted or badly nourished. As far as my limited experience goes, uterine disorders, of a functional kind, at least, more frequently depend on the state of the nervous centres than the reverse. It would have been unwise to have insisted on a local examination in this case, and the result justified this forbearance.

In this case, a wide range of nervous centres was involved—motor, sensory and emotional. The brain, heart, stomach and bladder were functionally disturbed. The "spasms" were not altogether involuntary, and consisted in irregular motor responses to extreme pain and to emotional excitement. The pain seemed to be that of spinal neuralgia, and the tenderness was analogous to that which occurs in hemicrania.

How far the nausea, gastralgia and dysuria depended on local irritation in the cord is doubtful. The latter symptom seemed to be purely nervous, while the former subsided under the use of capsicum very soon after the treatment began. The sacral tenderness, however, was more marked than that in the dorsal region. Dyspepsia and præcordial pain are frequently accompanied, in my experience, by dorsal pain and tenderness. I have not noticed the connection between nausea and cervical tenderness, of which Dr. Hammond speaks, but have often met with the latter symptom alone. Dr. Hammond asserts with great positiveness that spinal anæmia is the cause of spinal irritation, and that functional disorders occur in organs deriving their nerve supply from those parts of the cord affected.

Whatever the local condition of the circulation in the cord, there was no doubt in this case a generally anæmic state of the nerve centres. The emotional instability was evidence of imperfect nutrition and irregular blood supply in the convolutions. It seems probable that the blood supply in these cases fluctuates from time to time, and even from moment to moment, as we see the optic disc flush under the stimulus of an ophthalmoscopic examination. It is, therefore, probable that more permanent results will be obtained from a tonic treatment than from attempts to adjust our remedies to temporary conditions of the vaso-motor system.

The effort was made in this case, after excluding all sources of disturbance, physical and moral, to improve the nutrition and equalize the circulation throughout the nervous system. Rest, strong beef-tea at regular intervals night and day, with capsicum instead of alcohol, seemed first indicated. Belladonna was given for its relaxing effect on the bloodvessels, tending thereby to prevent local anæmias, and zinc for a nervous tonic. These means were relied upon to quiet irregular action, allay pain, and promote sleep, instead of remedies more directly anodyne and hypnotic. Chloral at night was used in small doses, partly for its proper effect and partly to satisfy the patient's mind, the exact quantity being carefully concealed from her. The patient had from the outset sought the immediate relief of narcotic doses of chloral, chloroform and alcohol, which increased her sufferings greatly in the end. This fact was fully explained to her, and received her intellectual assent, but did not prevent a craving for instant relief, even at the expense of narcotism.

After the more urgent requirements of the nervous system had been supplied, the slower acting tonics were found of benefit. The misrepresentation of facts after recovery is not an uncommon event, and depends partly on recollection, confused by former or present disordered feeling, and partly on a dulness of the moral sense peculiar to hysteria.

I will briefly mention a few cases of a less acute character, imperfectly observed, but which exhibit symptoms depending on a local or general failure of nervous power.

Case IV.—Mrs. D., widow, 42. Says she inherits scrofula and rheumatism. Thinks she has had a spinal disease from childhood. Always had a menorrhagic tendency. Is habitually costive, with occasional diarrhœa. Has been treated for "ulcers of the womb," and has worn pessaries. Says husband's recent death by suicide gave her a great shock. Suffers much from beating of the carotids, hemicrania, sub-orbital neuralgia, loss of energy, prickling in hands, restlessness, and at times spasms.

Is in good flesh, but anæmic; languid, with a nervous cough, and a discouraged but lady-like air. Find a spot of extreme dorsal tenderness, with pain, between the shoulder-blades and in substernal region. Ordered a tonic course of treatment.

Saw this patient three months after first interview. Had not followed treatment regularly. Was much the same, with recent increase of pain in back of head, neck and dorsal spine. There was a creaking of the muscles of the neck, stiffness of the jaws, and slight swelling of the joints of the fingers. Patient left the State, and has not since been heard from.

Case V.—Miss E., 38, school-teacher for many years. Father's father intemperate. Father excitable and inefficient. Menses always excessive, and is habitually costive. Gave up school-teaching on account of extreme nervous exhaustion, with depression and pain in the back of head and neck, giving rise to involuntary jerking movements as an instinctive method of relief. Has also a mania for precise adjustment of certain things. Exhausts herself re-arranging clothing in closets and dishes on shelves, from a weak fear that they will fall on the floor if left alone. Sleeps irregularly. Appetite fair. Is thin and rather anæmic.

Find in this case, also, tenderness in the cervical and dorsal regions of the spine, with præcordial distress, increased by fatigue. Patient restrains her nervous movements before strangers, and is less inclined to them in public and when under the pleasant stimulus of new surroundings. Says she screams out at times, and is inclined to talk to herself. Ordered pills of aloes and sulphate of iron, to be taken as required. Also elixir ferri phos., calisaya et strych., to be alternated with a mixture of the bromides of potassium and ammonium, the sesquicarbonate of ammonia and tincture of cinchonia, every fortnight, and chloral grs. xv. at bedtime. Also instructions as to mode of life, in relation to hours for sleep, rest, exercise, occupation, amusement, and for a largely increased diet.

The eyes were examined by Dr. Jeffries, who found nothing in the retina of special significance, but a slight divergence and consequent disuse of the right one.

This patient improved considerably before leaving the city. Six months after, had decidedly improved, but lost strength under the "lifting cure" system during the summer months. Walked or rode a mile and a half and back to practise it, and lifted 100 lbs. Had muscular pain and increased debility in consequence. Has returned lately to remain under my care. No new symptom noticed, except a slight drawing of the face to the right on laughing. No other sign of paralysis of motion obtainable. This may have passed unobserved at former interviews, as the patient seldom smiled. Sensation by æsthesiometer $\frac{3}{4}$ in. for right cheek and 1 in. for left. Ordered zinci phosphid. gr. $\frac{1}{10}$, ext. nucis vom. gr. $\frac{1}{2}$ ter in die, with blisters to tender spots in spine. Diet to be increased in amount of animal food, and stimulants added at lunch, dinner and bedtime.

Case VI.—Mr. A., 40, master machinist and inventor. In summer of 1870 passed a tapeworm, after two half-ounce doses of turpentine, which produced considerable purging and strangury. Patient kindly referred to me, in the fall, by Dr. Jewett, of Fitchburg.

Says he has overworked his brain by inventions. Did not recover strength after passage of tapeworm. Is naturally robust and stout, but has lost flesh of late. Is in a state of debility, with disinclination for work of any kind. Loses his temper easily and frets about his business. Complains of pressure in head, with occasional headache, loss of sleep, bad appetite, and constipation. Says his sexual power is gone.

No facial paralysis observed, but enunciation is indistinct and careless, partly owing to narrow upper jaw and projecting teeth. Complains of slight numbness in little finger of right hand. No difference in sensation by æsthesiometer. Can stand more readily with eyes closed on left than on right foot.

This patient recovered in two months, under tonic treatment, improved diet, and small doses of the bromides. Iron and aloes relieved the constipation. Travel was recommended, after apparent recovery. The loss of sexual desire may have been due to former use of bromides, and continued while they were taken. This effect was explained to the patient.

Case VII.—Mr. B., 52, married, engraver. Large frame and active mind. Imprisoned for Chartism in 1848. Threatened with brain fever many years ago. Became depressed three years ago, and two summers ago had several spells of transient unconsciousness. No spasms, but marked pallor. Complained of numbness in right hand and weakness in legs, with loss of memory. Went to London, and had much treatment, but no one seemed to understand his case. Referred to me by Dr. Sullivan, of Malden.

On examination, find no paralysis of lids, face, lips or tongue. Power in hands alike normal. Can write legibly, but with ill-defined letters. No trembling. Can walk several miles, but with considerable fatigue. Stands most unsteadily on right foot. Cannot stand long with feet approximated and eyes closed. Is a little unsteady on his feet when rising from his chair. No incoördination of speech or motion noticed.

Has a numbness more or less in all four extremities, most marked in ulnar half of right hand, but not definitely confined to distribution of the ulnar nerve. Thinks he could engrave, as numbness only affects those fingers on which hand rests, in writing or engraving. By æsthesiometer, sensation in right hand seems slightly impaired.

Is much concerned about his health and inability to work. Sleeps poorly, eats little and is very costive. Tongue—thin, pasty fur. Pulse 76, good strength. Ordered pil. colocynth. et hyosc. grs. v. at night, and chloral hydrat grs. xx. at bedtime. The above, recommended by Dr. Hammond in his recent book on Diseases of the Nervous System as a good extemporaneous prescription, was ordered instead of an elixir with the same ingredients. I have since learned that its preparation requires special manipulation. I have not seen this patient since the first two visits.

Case VIII.—Mr. C., aged 40, married, teacher. Nervous temperament. In college, eight years ago, eyes gave out, and has since learned his lessons by having them read to him. Has taught in the Sandwich Islands, and in California. In February, after an unusually protracted day's work, his ideas became suddenly confused, and the power of application vanished. Tried to resume work after a day or two, but symptoms soon returned in an aggravated form, with heat of head, dizziness, and confusion of ideas as before. There was no defect of speech, or loss of motion; no spasms or unconsciousness at any time, but sudden and continued prostration of nervous power following excessive brain work.

Since February, and until I saw him, in September, 1869, he had been unable to make the slightest mental exertion without distress. Cannot read or talk, or hear talking, he says. Had homœopathic treatment, vegetable diet, and a long horseback expedition during three months, with no improvement. Since, has used a more varied diet, but is afraid of tea, coffee or stimulants, on account of the queer feelings they excite in his head. Heat of sun is intensely disagreeable. Complains of cold extremities and chills, but wears a hat of pith, with ventilating space, around his head, and keeps a wet handkerchief always on his head. Is very hypochondriacal, but assumes a cheerful tone, and can be induced to laugh. Wife says he has not talked so much for months. Came East for treatment, and was referred to me by Dr. Garratt.

Advised him to give up travelling, to leave his wife, and to put himself in the hands of some competent physician, who would enforce a proper treatment and regimen, for a year. Could suggest no better place than McLean Asylum, where he consented to go. Remained a week, and thought he had got much new light on his case. Withdrew to the country to put his new ideas in practice, coming in town now and then to use general electrization at the hands of Dr. Garratt. Had improved three months after, but have not heard from him since.

Case IX.—Mr. D., 40, druggist, married. Mother hysterical, and aunt insane. Is small, thin, anæmic and feeble. Was formerly intemperate. Recently contracted a gonorrhœa, of which he is extremely ashamed. Complained when I first saw him, in the summer of 1869, of restlessness, loss of sleep, ringing in the ears, pressure at the vertex, and inability to work. These symptoms persisted, after the urethral inflammation had subsided, under use of oil of yellow sandal wood.

The record for June 22d is as follows: Sleeps moderately well under chloral grs. xxv. Rather costive; appetite fickle; feet cold; head hot; pulse 96. Is easily alarmed, and thinks he shall not recover. Has paroxysms of nervous excitement of an hysterical type. Ringing in the ears is a constant symptom.

July 7th.—No improvement. Mind very active. Reads Bible, and argues hotly on religious subjects. Very hypochondriacal. Has spells of confusion of ideas, and of palpitation of the heart. Is much alarmed at the latter phenomenon, and summons his friends to bid them farewell, but always disappoints them. Sleeps but three or four hours, in spite of as large doses of chloral as it seems safe to give. Stimulants are avoided on account of former habits. Other hypnotics have little effect. Appetite improves under various tonics.

Dec. 15th.—Improved slowly through the fall months. Eats well, and has gained flesh. Sleeps late in the morning. Still complains of constant tinnitus aurium. Has tried business, but has no energy or ambition. Is listless and lazy. Has formed the bad habit of invalidism. Keeps the house and reads too much. Now would be the time to travel, if he could afford it. Ordered a more active life, and daily regulated exercise.

Jan. 30th, 1871.—Fails entirely to carry out instructions. Consents to go to Taunton Hospital for the insane to have his mode of life regulated for him, and to give him a new motive for exertion. Returns November 20th, apparently recovered.

Case X.—Mr. E., 39, book-keeper, single. Father's mother insane. Father had a rheumatic tendency. Mother's sister died of consumption. Mother a nervous invalid for twenty-five years, with occasional spasmodic attacks. Self a delicate boy, with an active brain, given to intellectual labor and neglecting his physical condition. Overworked himself, mentally, in business and in outside literary efforts, losing sleep, and neglecting the laws of healthy living, till four years ago.

After excessive mental labor prolonged into the night, four years ago, felt his powers desert him, and could with difficulty hold up his head. Had for a long time been excessively costive, with a feeling as of some foreign growth in left iliac region, to which he had referred all his previous symptoms. Had smoked to excess and drank strong coffee.

At this time, by diminishing his outside duties, managed to go on with his business, and has not left it, with the exception of a vacation of five weeks last summer. Has not slept for four years without the use of stimulants or chloral in small doses at bedtime. Gets, in this way, six or seven hours broken sleep. Wakes with a jump, just after falling asleep. Indulges in a more liberal diet than formerly, and takes considerable daily exercise in walking and lifting. Office work is easy at present.

Is better than he was two years ago, but worse than he was one year ago. Chief trouble, beyond loss of sleep, is a semi-involuntary movement of limbs and face, which increases under restraint, and ends, if the attempt at control is too long sustained, in a violent flushing of the face and a feeling of desperation. Avoids public assemblies on this account. The confinement of a barber's chair, or the dining table, is sometimes insupportable.

Is not particularly hypochondriacal in the offensive sense. Conceals his condition as far as possible, and takes an intelligent view of it. Had thorough general electrization for six months, and was improved by it. Uses it now occasionally. Has tried long rides, but thinks they aggravate his troubles. Is most nervous in the evening. Has taken belladonna, under the direction of Dr. Stone, of Walpole, who kindly referred the case to me as a matter of convenience to the patient.

This list of cases might be indefinitely prolonged, and every physician is familiar with the class of which these are examples. The symptoms differ in each, and may be as various as the nervous functions themselves. They may be chiefly mental, or chiefly nervous. Some one symptom may so predominate as to give its name to the case. The one fact in connection with cases presenting features of depression, hysteria, or hypochondria, which should be most insisted on is that mental symptoms are as significant of nervous exhaustion as physical. The feelings and ideas depend as directly on the state of the nervous centres as any other of the nervous functions. Depression, irritability, suspicion, wilfulness, and all forms of morbid and disordered emotions, running into fixed or extravagant ideas, are symptoms of the same kind as numbness, pain, paralysis and spasm. They result from disordered function in different parts of the same nervous apparatus, and may depend on the same condition of nervous exhaustion. In dealing with nervous cases, it is important to remember that every symptom, mental or nervous, means *something*, and unless we patiently analyze both we fall short of the requirements of the case.

The indications for treatment in cases of neurasthenia are fundamentally the same, whatever the variety of manifestation, with the addition of such special methods as the peculiarities of each case seem to require. Rest, and an improved nutrition of the centre affected should be the aim, when mental disturbance exists. Moral forces come most strongly into play. To get and keep the patient's confidence by exhibiting a critical knowledge of his case and a true sympathy for his sufferings, intensely real to him, although misunderstood and overestimated in importance; and to educate him out of his mistaken notions, requires more time and skill and patience than most physicians can afford to devote to an exceptional case. The temptation is strong to throw all such exaggerated ills into the waste basket of disordered imagination, affronting the patient, and leaving him a prey to every form of quackery.

One great difficulty in these mixed cases of chronic neurasthenia is to keep the patient long enough under control to ensure a good result. The causes of deterioration have been a long time at work, and secondary states of anæmia and spanæmia exist with various bad cerebral habits, all of which must be overcome and outgrown. This fact is exemplified in the treatment of insanity, which is often a simple neurasthenia affecting the convolutions, and those patients are fortunate, sometimes, whose condition compels an early resort to hospital treatment. Here, time and rest allow the brain to lie fallow, and to accumulate, by an insensible chemistry, a new store of forces. Meanwhile, new blood is made, and the patient is educated to new hygienic ideas.

Varicella in San Francisco.—Chickenpox has been prevailing lately in San Francisco in an aggravated form, some cases so near to smallpox in character as to have been reported as such to the Board of Health.—*Chicago Med. Examiner.*

GRAEFE'S OPERATION AND STATISTICS VINDICATED.—II.

By Hasket Derby, M.D., Boston.

The main question at issue, between my friend Dr. Loring and myself, is as to the reliability of the statement made by Graefe, that the results of the peripheric linear extraction had proved decidedly more favorable than those he had obtained by the flap method.

Dr. Loring writes:—

"It is still a question whether the old flap, and not the peripheric linear, does not give the best results."

And in attempting to prove this from Graefe's own statistics, he appears, as he informs us, in the rôle of a defender of our illustrious master.

I am sensible that the discussion of this subject is mainly attractive to those specially interested in ophthalmic surgery. And as the majority of the readers of this Journal can hardly belong to this class, I propose to make my present remarks, the last I intend offering at this time, as brief as possible. A short resumé of what has already been brought forward will not be out of place. For the sake of brevity, I omit fresh reference to authorities already quoted.

The statistics of flap extraction, referred to by Graefe as furnishing a basis for comparison with the results of the new operation, were 80 per cent. of entire success, 13 of partial and 7 of failure. Those of the new method were 90 per cent. of entire success, and 10 of partial success and failure.

Dr. Loring now has argued that Graefe's statement with reference to the result of the new operation was fallacious, he having lowered his standard of perfect success from $\frac{1}{4}$ after the flap operation to $\frac{1}{6}$ after the peripheric linear; that, therefore, the results of the former in reality transcend those of the latter.

This opens up two questions: 1st, did Graefe gain vision of $\frac{1}{4}$ in 80 per cent. of his 1600 flaps? 2d, did he take as low a standard as $\frac{1}{6}$ for 90 per cent. of his peripheric linear cases?

The evidence brought forward by Dr. Loring has convinced me of what I was previously disposed to deny, namely, that Graefe, in 1863, intended his estimate of $\frac{1}{4}$ to apply to 80 per cent. of his 1500 flap extractions, and that he supposed it would be in his power to express fractionally, according to the method of Snellen just published, the acuteness of vision he had been accustomed for years to record in the old manner, which was by stating the No. of Jaeger's test-type the patient was able to read. With instances of vision thus expressed by Graefe and others ophthalmic literature teems, and, though it cannot be compared with the improved method due to the genius of Snellen, it must still be remembered that, before his day, there was no better way than this. It was natural to attempt the utilization of results recorded in the old manner, and with the intention of rendering this possible, Snellen appended to the French edition of his tests, published in 1862, a table showing the relation of Jaeger's type to his own. According to this, we have Jaeger No. 11 equal to Snellen IV. A person reading Jaeger No. 11 in 1 foot would have his vision estimated at $\frac{1}{4}$. It has been justly observed that this is practically wrong, though theoretically right,* for we frequently find patients with amblyopia, or who have been operated on for cataract, who can easily read $4\frac{1}{2}$ of Snellen, but cannot make out CC at 20 feet. In other words, vision $\frac{1}{4}$ in 1 foot is not always, and in fact rarely, vision $\frac{1}{4}$ in 20 feet, using Snellen's types, after cataract operations. So Snellen appears to have found, for his comparative table was withdrawn from later editions of his work. So Graefe evidently became persuaded, for *we have no evidence of his having carried out his project of reduction.*

He says, in 1863, that he has made a collection of 1500 flap cases, that he reserves the work for separate publication, and that, according to his estimates, 80 per cent. of such operations result in ultimate success, i. e. vision $\frac{1}{4}$ under, $\frac{1}{6}$ over the age of 75. In 1864, he says, in the passage cited by Dr. Loring in his last article, that he is at work making out the statistics of 1600 cases. The task, therefore, had not, up to that time, been completed. He is, moreover, bringing (not "has brought") the results into four groups, the first embracing the complete successes where vision is $\frac{1}{4}$. The first of these remarks occurs in a clinical lecture, the second in a public discussion. On a third occasion, in 1865, he refers to the work in the columns of the Archiv, his official organ, and in such a manner as to induce a belief in its having been completed. He has discarded the four groups and brings his cases under three heads; he

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* Dr. Dyer, of Philadelphia, a fellow-student at Berlin and Utrecht, in a private letter, draws attention to the fact that Graefe, in referring to his 1500 cases in 1863, endeavored to reduce his records of vision to Snellen's standard, but made a mistake when he attempted to generalize his statistics, and assumed that a patient who could read Jaeger No. 11 (= Snellen IV) necessarily had vision $\frac{1}{4}$, or must be able to read C in 25 feet.

no longer speaks of his partially successful cases as having vision greater than $\frac{1}{30}$, but as able to read fine print; he makes no reference to the method of Snellen, and leaves us to infer that the reduction of his previous results to it had not turned out practicable, and had been given up.

It does not, therefore, seem proved that 80 per cent. of 1600 cases of flap extraction acquired vision $\frac{1}{4}$; in other words, were able to make out Snellen CC in 25 feet.

It only remains to inquire whether Graefe took vision of $\frac{1}{6}$ as a standard of success in 90 per cent. of his peripheric linear cases. Our assumption that he did so is erroneous, as will be presently seen. It will be, moreover, seen that Dr. Loring was in error in saying that there is no reason for believing that Graefe did not here too make an allowance for old age, and class as perfect results those whose real vision was expressed by a somewhat lower fraction. To prove this and give Graefe's last published estimate of the comparative results of flap and peripheric linear extraction, I will simply make three quotations from what he wrote in the *Klinische Monatsblätter* for 1868.

"If, without going into details, we look back on the results of flap extraction, we find that the statistics capable of utilization—that is those which, while taking into account the amount of vision, are based on a long array of cases and a tolerable equilibrium of external circumstances—average 80 per cent. of complete, 15 to 12 of partial success, and 5 to 8 of failure." P. 14.

Speaking of the new method :—

"Statistics, taken a short time since from my journal, give, for a total of 600 cases, 90·4 per cent. complete, 6·8 half success, and 2·8 failure." P. 17.

"——— the full results after linear extraction, in all of which vision exceeds $\frac{1}{5}$, or, if the patients are very old, $\frac{1}{6}$." P. 267.

As he had said nothing since 1864 with reference to what success after flap operation meant, it is probable the standard, governing the remarks just quoted, was the same.

To these words nothing need be added. Graefe is his own best defender. He thought and stated, from first to last, that he got better results from the new method than the old. What the results from each were none knew better than himself. Who can believe that he did not speak and write advisedly?

A CASE OF POISONING BY THE EXTERNAL APPLICATION OF ACONITE.

By Stephen S. Keene, M.D., Providence, R. I.

On the 3d of October, a male patient, aged 45, of good constitution and in sound health, had pain in right side of the face, and obtained from an apothecary the following prescription :—

℞. Tinct. rad. aconiti,
Tinct. opii, āā ℥ss. M.

He applied this to the face by rubbing with the fingers of the right hand.

One half hour afterwards he was seized with dizziness, nausea, dimness of sight, cephalalgia, pain in back with sensation of coldness running along the spine, partial loss of motion of lower extremities, with cramps and pricking sensation and coldness in legs and feet. Half an hour later he felt pricking in hands, with loss of motion. No convulsions.

One hour after the application of the aconite, I found him to be in the following condition :—Countenance pale; expression of anxiety and distress; cephalalgia; dizziness; mind confused; hearing not affected; dimness of vision, sight confused, pupils dilated, no motes; speech and deglutition intact; movements uncertain; trembling of extremities; no convulsions; pain along spine, extending to lower extremities; partial paralysis of motion and sensation of lower extremities, with cramps, numbness, coldness and pricking sensation in legs and feet; partial paralysis and pricking sensation in upper extremities, less marked than in lower extremities; some nausea; pulse feeble; skin cold.

On examination, no abrasions were found on face, but the index finger of right hand had a slight wound. He was treated with ammonia and chloroform. Four hours later, all the symptoms had diminished in intensity. During the night, however, delirium came on, but the next morning the symptoms had nearly subsided, and they had entirely disappeared at the end of forty-eight hours.

Among the curious social facts developed by the census statistics is the appearance on the rolls of Pennsylvania of one family with seven pairs of twins; one family with six pairs; and another family with four pairs. The mother of the last group has six other children, and was only 38 years old.—*Med. and Surg. Reporter.*

Reports of Medical Societies.

SUFFOLK DISTRICT MEDICAL SOCIETY. REPORTED BY J. H. MC'COLLOM, M.D., BOSTON.

The Society met Dec. 30th, Dr. Geo. H. Lyman, the President, in the Chair.

Embolus of Cerebral Artery.—Dr. Lyman exhibited an embolus of the middle cerebral artery. The patient had had several attacks of rheumatism, which had caused valvular lesions of the heart. About twenty-four hours previous to his death, he suddenly became unconscious, although at intervals he rallied slightly and was delirious; the delirium being of the low muttering order. There was dilatation of the pupils and paralysis of the extremities. A short time before his death, he became partially conscious, but soon relapsed into a comatose condition, from which he did not recover. At the autopsy, an embolus was found in the middle cerebral artery.

Dr. Chenery read a paper on hæmoptysis, as the result of excessive coitus.

Cancer of the Face.—Dr. Brooks related a case of advanced cancer of the face. Cundurango had been tried, but without any beneficial result. The existence of paralysis was spoken of as an interesting complication in this case.

Death of Dr. Stephen Ball.—Dr. R. H. Fitz gave an account of the autopsy which he had lately performed on the body of the late Dr. Ball, a member of the Society, who died of cancerous disease of the stomach. The body was somewhat emaciated. The lungs were free from active disease, although two cicatrices were found at the apex of one lung, and at the base an *ante-mortem* clot. In the left lung there was a nodule, which, upon examination, proved to be a clot, containing in its centre a small grayish mass. The liver, spleen and kidneys were atrophied. The middle lobe of the prostate gland was somewhat hypertrophied. Nearly two thirds of the stomach was involved in the cancerous disease, which was seated in the mucous and muscular coats. Near the pylorus the muscular coat was thickened, discolored, and in some places had ulcerated. Towards the cardiac orifice the structure of the mucous and muscular coats was less dense than is normal, and elevated patches resembling cancer could be distinguished. The pyloric orifice was constricted by a thickening of the mucous and muscular coats. The bladder and rectum were also the seat of this disease, which appeared in the form of thick plates disseminated on the surface of these organs.

In this connection, Dr. Fitz remarked that it was the opinion of Virchow that the appearance of secondary cancer in the rectum and bladder was due to a physical falling of the germs of the disease.

Dr. Jackson gave a history of the illness of Dr. Ball. Last spring, it was noticed that Dr. B. began to fail, although he continued to practise until a short time previous to his death. Some time in May, a tumor appeared in the region of the stomach, which gradually increased in size until it extended across the epigastrium, and was six inches in length by two in breadth. The ingestion of food was followed by regurgitation. There was no actual vomiting at any time, and very little pain near the seat of the disease. Constipation, which is of common occurrence in the disease, was not at any time a marked symptom. Dr. Jackson also remarked that the disease was very extensive, only the left extremity of the organ being intact, and that the disease usually extended from left to right. Cancer of the stomach may not give rise to grave symptoms unless the orifices of the organ are implicated, and then there will be dyspeptic symptoms. Dr. J. said that he did not believe the theory of Virchow, that secondary cancer was due to the dropping of the disease germs. But as cancer was a constitutional disease, it seemed reasonable to him that it might be confined to one organ at first, and then extend to the others through the circulation.

Opium Poisoning.—Dr. Hunt read a paper on a case of poisoning by opium. The paper appeared in the JOURNAL of Jan. 11th.

Dr. Johnson asked if atropia was of any use as an antidote in cases of poisoning by opium. He said that he was of the opinion that atropia had no antagonizing action to the poisoning effect of opium.

Dr. Lyman answered the question by relating a case occurring in his own practice, in which the life of a patient was saved by the hypodermic injection of atropia, after narcotism had been caused by the injection of morphine.

Dr. Spring stated that he had used belladonna with much benefit in cases of poisoning by opium. He also called attention to the experiments of Dr. Mitchell, of Philadelphia, in reference to this subject.

Dr. Fitz spoke of a series of experiments performed in France, in which it was found that although the use of atropia counteracted some of the poisonous symptoms of opium, still in those cases where doses were given large enough to kill the animal, the fatal effect was not influenced by the atropia.

Dr. Hazelton related a case of opium poisoning where coffee and constant motion were the agents used, with marked relief of the symptoms.

Dr. Lyman related a similar case, where the cold douche was combined with active exercise, which contributed in a marked degree to the recovery of the patient.

Pleuritis and Rheumatism.—Dr. Fisher related a case of acute rheumatism in an aged person, in which pleuritis supervened.

Dr. Jackson remarked that it was not very common for rheumatism to be complicated with pleuritis.

The Society adjourned.

Selected Papers.

OBSERVATIONS ON CRANIA.

From the interesting report of Professor Jeffries Wyman, Curator of the Peabody Museum of American Archæology and Ethnology, we take his observations on Crania:

The *Peruvian* crania present the two modes of artificial distortion commonly seen, those from chulpas or burial towers and other places in the neighborhood of Lake Titicaca being lengthened, while those from nearly all the other localities are broadened and shortened by the flattening of the occiput. They are, on the whole, massive and heavy. Many of the measurements usually recorded in describing ordinary crania have been omitted, since they would in those under consideration depend upon the degree to which the distortion has been carried, and would, therefore, give artificial and not natural dimensions. * * * * *

Although the crania from the several localities, as seen in Tables I—VII, show some differences as regards capacity, *e. g.*, those from Casma, Cajamaquilla, and Truxillo, as compared with those from Grand Chimu, Amacavilca and Pachicamac, yet in most other respects they are alike. The average capacity of the fifty six crania measured agrees very closely with that indicated by Morton and Meigs, viz., 1230 c.c., or 75 cub. inches, which is considerably less than that of the barbarous tribes of America, and almost exactly that of the Australians and Hottentots as given by Morton and Meigs, and smaller than that derived from a larger number of measurements by Davis. Thus we have, in this particular, a race which has established a complex civil and religious polity, and made great progress in the useful and fine arts, as its pottery, textile fabrics, wrought metals, highways and aqueducts, colossal architectural structures and court of almost imperial splendor prove, on the same level as regards the quantity of brain, with a race whose social and religious conditions are among the most degraded exhibited by the human race.

All this goes to show, and cannot be too much insisted upon, that the relative capacity of the skull is to be considered merely as an anatomical and not as a physiological characteristic, and unless the quality of the brain can be represented at the same time as the quantity, brain measurement cannot be assumed as an indication of the intellectual position of races any more than of individuals. From such results the question is very naturally forced upon us whether comparisons, based upon cranial measurements of capacity as generally made, are entitled to the value usually assigned them. Confined within narrower limits they may perhaps be of more importance. But even in this case the results are often contradictory. If the brains of Cuvier and Schiller were of the maximum size, so were those of three unknown individuals from the common cemeteries of Paris—while that of Dante was but slightly above the mean, and Byron's was probably even below it.

The collection of mound crania from Kentucky, made by Mr. S. S. Lyon, under the joint patronage of the Smithsonian Institution and this Museum, is by far one of the most valuable hitherto brought together. A comparison of these crania with those of the other and later Indians, shows that they have certain marked peculiarities, though these are doubtless better appreciated when the two kinds are placed side by side, than from any tables of measurement or verbal descriptions.

The twenty-four crania measured show a mean capacity of 1313 cub. cent., which is greater than that of the Peruvians, but less than that of the N. American Indians generally (viz., 1376 c.c., or 84 cub. inches). They differ also from those of the ordinary Indians in being lighter, less massive, in having the rough surface for muscular attachments less strongly marked. The top of the head shows a moderately angular or roof-shaped arrangement of the parietal bones and the sides are vertical. In proportions they present a very considerable variation amongst themselves. Assuming the length of the skull to be 1,000, the breadth ranges from 0·712 to 0·950 of the length. The average proportion is 0·857, which places them in the short headed group. This result is influenced, but not to any great extent, by the fact that the crania have been somewhat distorted by a flattening of the occiput. In the majority, this flattening is very slight, and is indicated by a nearly plane surface just above the protuberance, and which would not materially diminish the length of the skull. The position of the foramen magnum is quite far back. We have shown elsewhere that in the North American Indians, generally, it is farther back than in the Negro and other races with which they had been compared. In the mound crania the distance of the anterior edge of the foramen magnum from the occiput is only 0·372 the long diameter of the skull. This position can be only partially due to distortion, since in the three skulls in which the foramen was farthest back the occiput was not in the least flattened.

Dividing the crania into two groups, according to the features which distinguish the sexes, the numbers of the two are about equal, and comparison of them shows a difference of 125 c. c. in favor of the males.

The separate bone at the apex of the occiput, and known as the "epactal," or "bone of the Incas," exists in a somewhat smaller proportion than in the series of Peruvian crania presented by Mr. Squier. It is certainly found more frequently in the mound than in other crania of N. America, and is a point of resemblance to the Peruvian not to be overlooked, though it may be purely accidental.

The crania from Florida were nearly all obtained from a single burial place near Shell Mound, a few miles from Cedar Keys. Shell Mound is an ancient Indian shell-heap of gigantic proportions, forming an amphitheatre, in some places rising to the height of twenty feet, and enclosing an acre of land now under cultivation. If one may judge from the immense quantity of shells brought together, it must have been inhabited for a long period of time, as the limited space around it uncovered with water could afford habitations for only a comparatively small population. The burial place was on a neighboring island, separated from it by a narrow channel. In some parts the general surface did not indicate the presence of a cemetery, but a few graves had, however, been opened before our excavations were made. Nearly all the crania here described were from a small mound of sand, in which the dead were deposited without any definite order, and the only objects buried with them being oyster shells, fragments of pottery and drinking cups made of the shell of Pyrula. In some cases two or three oyster shells were the only objects, and in no instance was anything made by the white man detected, such as glass beads, &c. The burials were all of the rudest kind. No indications of approximate age of the mound were found, nor could information with regard to its history be obtained. The trees growing upon the mound were none of them more than a half a century old. The bones were all greatly decayed by the destruction of the organic matter, and it was only with the greatest care that they could be removed without injury or even complete destruction. When dried they acquired greater firmness, but could only be preserved and handled after being immersed in gelatine.

The capacity of the skulls is 1375 c. c., nearly 84 cub. inches, and is greater than that of the mound crania. The foramen magnum is quite far back, its index being .374, very nearly the same as that of the crania just referred to, but there are no signs whatever of distortion. They are remarkable for massiveness and thickness. The average thickness through the parietal bones in eight of them amounting to 10.5 m. m., or 0.42 inch, or almost double the usual thickness, and in this respect they contrast very strikingly with skulls from the mounds, as they also do in the general roughness of the surfaces for muscular attachments on the hinder part of the head.

The skulls are quite heavy, but in consequence of the destruction of the bones of the face in most of them, the whole weight could be had in a single instance only. This happens to be the heaviest of the series, weighing 995 grams, and, notwithstanding the loss of its organic matter, is heavier than any of the three hundred skulls of various races in our collection. The next heaviest are those of a Negro, weighing 975 grams, of a Hawaiian Islander, weighing 845 grams (the average of 21 crania being 640 grams), and of a Tsuktshi, weighing 860 grms.

CHEMICAL NOMENCLATURE AND THE PHARMACOPŒIA.

By Hubert Primm, Ph.D., Apothecary, St. Louis,

The close alliance existing between the Pharmacopœia of the United States and that of Great Britain, especially in that portion of these works which has a direct reference to applied chemistry, render any endeavor to simplify and harmonize their nomenclature to the advanced theoretical knowledge of this science a matter of interest to pharmacists as well as to the medical profession at large; consequently, the paper of Prof. Attfield on "The Chemical Nomenclature of the Pharmacopœia, with Suggestions for its Revision," read at the April meeting of the Pharmaceutical Society of Great Britain, is well worthy of notice at our hands.

Prof. Attfield holds that the chemical nomenclature of the current pharmacopœias is mainly scientific, founded on theory, and therefore liable to change; that, of necessity, in its relation to medicine and pharmacy there is much mutability; which is a great fault, because the life and health of a people are largely dependent on the perfect understanding which should subsist between the physician who prescribes and the pharmacist who prepares.

Within the last few years, the views hitherto prevailing of the constitution of matter have undergone radical alteration, as being no longer consistent with ascertained truths, and the nomenclature embodying these views has, of course, shared the fate of the theories. Under these circumstances, the principles that are to guide us in adopting for medicine, pharmacy and the pharmacopœia such names as, on the one hand, are perfectly explicit, readily understood, unambiguous, and, on the other, consistent or at least harmonious with prevailing chemical theories as expressed in the educational literature of the sciences, are of the utmost importance.

The nomenclature of the chemical portions of the pharmacopœias of Great Britain and of the United States is that mainly suggested by Lavoisier, the fundamental principle of which is "that the name of a salt should express its composition." The great majority of chemical substances employed in pharmacy are such mineral salts as were known to Lavoisier, and their names were mostly given on the assumption that they contained, on the one hand, an undecomposable body, generally a metal common to a whole class of salts (the compounds of *copper*, for example), and on the other, a body or a group of elements, also common to a number of salts (*sulphates*, for example). Soda, potash, lime, baryta, magnesia, and alumina, were then considered to be elements; hence such names as carbonate of soda, nitrate of potash, and sulphate of baryta, are perfectly consistent with those of carbonate of iron, nitrate of mercury and sulphate of copper. Gradually the vulgar names of green vitriol, blue vitriol, glauber salts, and gypsum, for example, gave way to the more scientific nomenclature invented for them, as the substances just mentioned were considered to contain, on the one hand, the "elements" iron, copper, soda, and lime, respectively, and, on the other, a group of elements common to each of the former compounds; the four different elements were indicated in the spoken and written nomenclature of the compounds by the four names "iron, copper, soda, and lime," while the one group and its presence in each of the four compounds was indicated in the nomenclature of the same by the word "sulphate"—sulphate of iron, sulphate of copper, sulphate of soda, and sulphate of lime.

There arose no occasion for change or interference in the system until 1807, when Davy made his memorable and brilliant researches on the alkalies and alkaline earths, and discovered that potash, soda, baryta, strontia, and lime, were not elements, as had been previously supposed, but that the true basylous radicals of the so-called compounds of potash, soda, baryta, strontia, and lime, were metals, to which were given the names of potassium, sodium, barium, strontium, and calcium. Thenceforward the old names potash, soda, baryta, strontia, and lime, were used to designate the oxides of the new metals. This discovery of Davy was like the apple of discord among the chemists of the day, for the names of the salts of Davy's metals were no longer consistent with the names of the salts of all other metals; for while the sulphate of iron distinctly expressed the combination formed by the union of metallic iron with a common acidulous group of elements represented by the word "sulphate," the name "sulphate of soda" as distinctly expressed a compound formed by the union of oxide of sodium with a common acidulous radical still indicated by the word "sulphate," but not having the same composition as (having less oxygen than) the similar acidulous radical united with the iron; hence it was felt that either such words as "sulphate," "nitrate" and "carbonate" must each have two significations, and salts of the alkalies and alkaline earths be compounds of the oxides of metals, and all other salts (*i. e.* sulphate of iron, &c.) as compounds of metals—or such words (sulphate, nitrate, &c.) must have a common (though an altered) meaning, and all oxygen salts be considered as compounds of oxides of metals.

Prof. Attfield states that Davy—supported afterwards by Dulong, Clark, Graham, Liebig, and Daniell—suggested that

"*All* metallic salts were composed of metal alone on the basylous side, and a distinct radical on the acidulous side. * * * * Many objectors to the theory arose, and hence salts came to be regarded as compounds of oxides of metals with certain acidulous radicals now known as anhydrides. * * * In short, no theory of the constitution of salts was offered, or has yet been offered, which satisfactorily explains and harmonizes all known facts respecting salts, * * * so when, a very few years ago, chemists were led by irresistible arguments and stubborn facts to double many of the old atomic weights, an opportunity of abandoning existing constitutional theories then presented itself and was by common consent accepted. * * * The dualistic idea of salts * * * and the not less binary notion renounced, or, at all events, restricted to the idea of *oneness*."

After discussing the relationship existing between the modern chemical notation and the pharmacopœia, and that notation and nomenclature should harmonize, as they are but different methods of expressing the thoughts and wants of everybody respecting chemical substances, the Professor holds this language concerning the properties of names:—

"1. The name should, as far as possible and practicable, indicate composition.

"2. The name should be associated with only one substance—though synonyms are useful both from a theoretical and a practical point of view.

"3. A name, even if fallen out of use, should not be transferred to a substance having properties different from the original substance.

"4. The name of an officinal chemical substance, that is to say, a name officially recognized in national pharmacopœias, should possess the minimum of instability. * * * Verbal changes of almost any kind are unpopular. * * * Changes in the name of pharmacopœial chemicals are objectionable in the interest of medical practitioners, their patients, and pharmacists.

"5. A pharmacopœial name should admit of being either easily spoken or written, both in the full and in the contracted form, in modern languages and in the Latin.

"6. When close resemblance between two salts is indicated in all but one of the syllables of two names, that syllable should be at the commencement of the name, and not at the end, where it would be liable to be omitted by a prescriber. Indeed, such variations are often indicated with the utmost usefulness by a separate word altogether, confusion and even mischief being thereby avoided. Thus for calomel and corrosive sublimate the words *subchloride of mercury* and *perchloride of mercury* are greatly to be preferred to *mercurous chloride* and *mercuric chloride*; for a physician in writing a prescription would contract the former to *hydr. subchlor.*, and the latter to *hydr. perchlor.*, which are still distinct; while the others would be *both* liable to be contracted to *hydr. chlor.*, and a patient perhaps be killed by corrosive sublimate, instead of cured by calomel. So *green iodide of mercury* and *red iodide of mercury* are better than *mercurous iodide* and *mercuric iodide* * * * any greater precision that may be desired being given by chemical formulæ.

"7. A name should not be changed for mere purpose of euphony, real or supposed; thus, chlorhydric for hydrochloric.

"8. Names of pharmacopœial chemicals should be consistent with each other.

"9. The chemical names employed in pharmacy should be consistent with those used in other branches of applied chemistry, and with the language of scientific chemistry and general chemical literature. I say consistent; certainly not identical. For I believe the time has come, when, by making a few slight alterations in the terminations of a few of our chemical names, we shall have a system of pharmaceutical nomenclature, which, while perfectly harmonious with, is quite independent of, scientific chemical nomenclature, and which, therefore, contains greater elements of permanence than any yet adopted. These alterations, be it noted, are in the terminations of the names only; hence the contracted names almost universally used by physicians and pharmaceutists would in no way be interfered with."

The chief alterations proposed by Prof. Attfield consist in this, that the compounds of the alkaline metals and alkaline-earth metals, instead of being named as hitherto on two distinct systems, should follow but one:—"that instead of salts of potassium and potash, we should have salts of potassium only; and so with the preparations of ammonium, lithium, calcium, magnesium, and aluminum;" and that when similarity between two salts is indicated by identity in all but one of the syllables of their names, that syllable should be at the beginning and not at the end of the word, where there would be a likelihood to omit by the physician. In America, especially, where a scientific, or even a half-way scientific education on the part of the pharmacist is in no way obligatory to the practice of his profession, it is particularly desirable that Prof. Attfield's suggestion in its main features should be adopted into the pharmacopœia, as from the non-scientific education of the bulk of pharmacists it is decidedly more important that names should denote things rather than ideas as to the nature or constitution of the same—independently of the simplicity of the plan by which uniformity is arrived at in the designation of chemicals in pharmacy.—*St. Louis Med. and Surg. Journal.*

Medical and Surgical Journal.

Boston: Thursday, February 1, 1872.

THIRD ANNUAL REPORT OF THE STATE BOARD OF HEALTH.

The report of the Board of Health for the year just closed was presented to the State Senate a few days ago by the Secretary, Dr. George Derby. From the statistics given and from a knowledge of the subjects investigated and reported on, we are confident that the Board, which has so high a stand in the estimation of the physicians of the State, will gain equal respect from our legislators.

After the general report, a detailed account is given of the various hearings and decisions of the Board under the law concerning *slaughter houses and noxious and offensive trades.* It is stated that the opposition of the prominent butchers of Brighton to the building of an abattoir has ceased, that land has been bought and plans are now being made for the erection of buildings in which all portions of the slaughtered animals can be converted into useful materials on the spot. The probable result will be that Brighton, instead of being a nuisance to itself and to all travellers through its borders, will be rid of all those things which now make it offensive. The power of inspection given the Board by the act of incorporation of the Boston Slaughtering and Melting Association, added to the fact that the Board has a right to direct all engaged in slaughtering within six miles of the State House to transact their business at the Brighton abattoir, if it is found to be a nuisance elsewhere, will be a tower of defence for Boston and vicinity against the sale of unwholesome meats.

The article on *arsenic in green colors* is a paper by Dr. F. W. Draper, giving information of really vital importance concerning the danger of poison by green-painted toys, wall-paper, artificial leaves for bonnets, lamp shades and confectionary colors.

The article on *mill-dams and water obstructions* is written by the Secretary of the Board, Dr. Derby. He shows that such obstructions arouse consumption and malarial fevers, and that epidemics flourish near them. He says that the industrial and hygienic questions are inseparably joined, and that the legislature should so regard them when mill-dams are thought necessary.

Dr. Bowditch submits a careful analysis of the correspondence contained in the report of last year, and of other facts more recently obtained bearing on the use of *alcoholic liquors.* The idea of bringing intemperance under cosmic law, and of graphically representing that fact, is brought out in this paper for the first time in the history of the subject. The Board recommend the establishment of inebriate asylums.

The subject of the *adulteration of food* is treated of at some length, and the result of investigations on the subject is given, especially in regard to canned fruits, vinegar and coffee. Advice of a general character is given in reference to various articles of consumption, and this portion of the report will undoubtedly be extensively read among the laity and be of practical use.

Dr. Edward Jarvis has contributed a valuable paper with reference to the *classification of insane persons.* He urges the necessity of variations in the character of the architecture of asylums to meet the various classes of patients, and of erecting buildings in the future more in accordance with modern opinion in this regard. No restraint, except what is absolutely necessary, should be put upon the unfortunate inmates of these establishments. At present our asylums have too much of the general aspect of common jails. The Board commend this report to the consideration of those who may be charged with the building of hospitals for the insane.

Dr. F. E. Oliver furnishes a paper on the *use and abuse of opium.* There has been an enormous increase in the importation of opium during the past quarter of a century, and it behooves us to discover, if we can, what use is made of it. The habit of opium-eating not unfrequently has had its origin in the prescriptions of physicians; various nostrums for children contain large amounts of this drug. Reform from the opium-eating habit is found to be even more difficult than from the intemperate use of alcohol.

Dr. A. H. Nichols gives a very complete statement of the effects on health of the use of *sewing machines* moved by foot power, based on personal investigation and returns from a large number of correspondents. It is evident that most women cannot make continuous use of the common pedal for any considerable time without suffering from general debility and various local disturbances. These evils may be prevented by the substitution of steam for foot power in large establishments, or by the use of electro-magnetic power, or by the use of improved pedals, which greatly reduce the required movement of the feet and legs of the operator.

The article on *vegetable parasites* and the diseases caused by their growth on man, written by Dr. James C. White, is a thoroughly scientific and elaborate statement of the whole subject, which the Board submits to the medical profession in confidence that they will find it of great value.

In reference to *smallpox*, the Board state that unremitting vigilance against the first inroads of the disease and prompt measures for the seclusion of patients, with a thorough vaccination of all children and of all non-vaccinated or imperfectly vaccinated adults, are the only safeguards for a community. If in all places the above rules had been always adhered to the greater part of the 3000 dead in Massachusetts from smallpox in twenty-eight years would have been saved. The Board call attention to the defects of the present law relative to smallpox.

After speaking briefly of the *health of the various towns* from which letters are given, the report says the Board have seen with great pleasure two propositions made the past year in the City Council of Boston—one relating to the appointment of inspectors of meats, fish and vegetables, with power to destroy all such articles as are offered for sale in a condition unfit for food; the other proposing that the powers of a Board of Health be transferred from the Board of Aldermen to a distinct and independent Board, holding office for a term of years and selected with reference to their fitness to meet the important questions which must constantly engage their attention.

Under the head of *model lodging and low tenement houses,* commendatory allusion is made to the work of the Boston Coöperative Building Company, which is described at considerable length.

The report also advocates the making and preservation of records of sickness as a most important means of preserving health. It is suggested that if some plan were begun here and gradually extended by State Boards of Health throughout the country, the grand idea of a national board of health, proposed many years ago by Jeremy Bentham, might be realized.

It is stated that in addition to the subjects on which special reports are submitted, others have received attention and their investigation will be continued. Among them are mentioned the cause and means of preventing consumption, and the food of the people of Massachusetts.

The expenses of the Board for 1871 were $2843 05, of which $529 25 was for postage and stationery.

New Dispensary for Skin Diseases.—All large foreign cities, and New York and Philadelphia in our own country, have dispensaries devoted solely to the treatment of skin diseases, and the experience of those cities has shown the value of such institutions. The need of one in Boston is apparent to every observant pedestrian. The motto of Boston should be *"monstro viam;"* failing this, let her at least accept *"credo experto."* As she has an Eye and Ear Infirmary, as well as eye and ear departments at her hospitals, so she needs a dispensary for skin diseases, in addition to the hospital departments for these maladies.

Our hospitals barely supply the needs of the North End and vicinity and of the rapidly extending South End. The Eastern and Southeastern quarters, with the South Cove and Dorchester Districts, are unprovided for. Many patients also dread to go to a "hospital." At the Boston Dispensary there is no department of skin diseases, and the physicians of the Dispensary acknowledge the need of some institution where these diseases may be properly and thoroughly treated. Dr. Damon, of the City Hospital, has already called attention to this need. The new Dispensary for Skin Diseases is at No. 241 Harrison Avenue, corner of Pine Street, and is under the professional charge of Dr. Edward Wigglesworth, Jr. It starts under the most favorable auspices, with the "best wishes" of our first dermatologists, and with an annual subscription of more than treble the amount expended annually by the Skin Dispensary of Philadelphia. Open Mondays, Wednesdays and Fridays, from 11.30, A.M., to 1, P.M.

Foreign Correspondence.—We are permitted to publish portions of a private letter from a Boston gentleman in Vienna, containing items of interest to the profession:—

Vienna, December 20, 1871.

Dear Dr.,—An exaggerated type of the genus quack has been recently attracting so much attention in Austria by the extraordinary nature and the enormous number of her pretended cures, that I am tempted to detail briefly her procedure, as lately described in the papers. She is a woman, Dal Cin by name, of Italian origin, who for a year or more has been moving from village to village, and town to town of Northern Italy, Hungary and Austria, claiming to effect by certain manipulations a perfect cure in all cases of dislocation of the hip, hip-joint, and such like diseases. The number of those treated by her with perfect success is recorded as many thousands. At last, two months ago, she ventured into Vienna and began to ply her trade; here she soon acquired such renown that a commission from the medical faculty was appointed to investigate her claims to be admitted to practise in the city—a privilege granted only to those who have proved themselves fully qualified. The four cases seen by the committee, in all of which the head of the femur could be unmistakably felt to be in the acetabulum, were diagnosticated by the Frau Dal Cin as all dislocations, which she would proceed to reduce. To effect this, having first placed the feet so as to show the greatest possible deformity, she seized the limb, made several complicated but painless motions without especially fixing the pelvis, and then, by means of the shortened limb, drew down that side of the pelvis, laid the feet together and held them so, while she showed to the astonished public that the soles were side by side, and the limbs were of equal length. In order not to be detected while preparing the bandage, she bent the knee of the longer leg, and placed the foot across the back of the other. A bandage of tow and white of eggs was applied to the thigh with an external splint. The patient was then ordered to remain in bed and not remove the dressings for a month. The reduction being announced as perfect, the physicians proceeded to measure the limbs, with the result that in no one of the cases was the slightest change in length, position or mobility discovered. After these experiences and proved facts, the commission felt themselves justified in publishing the following statements:—

"1. The Frau Dal Cin has not the most superficial conception of a dislocation, or the means of its reduction (in one case she designated the trochanter as the head of the femur).

"2. The attempted operation consists in irregular, changeable, planless, passive motions, insufficient either to reduce a dislocation or stretch a contraction.

"3. The success of these painless motions was, in every case examined, *nil*.

"4. Inasmuch as Frau Dal Cin, after the so-called reduction, makes use of certain manœuvres with the object of deceiving as to the comparative length of the limbs, it follows that Frau Dal Cin is fully cognizant of this deception, and that she is in the true sense of the word a female swindler."

As a result of this report, the fair Italian has been forbidden the city, and driven to practise her calling among a more credulous folk.

Bamberger is at length appointed successor to Oppolzer in the 1st medical clinic; he has accepted the call, and will enter upon his new duties at the opening of the summer semester. Nothing but rejoicings, in the medical circles of Vienna, greet the announcement that the unanimous and oft-repeated nomination of the Faculty has been at last accepted by the new liberal Cabinet of the Empire. On the very last day of power, the former Minister of Education sent to the Emperor for signature the paper conferring the position upon his *protégé*, Prof. Körner, of Gratz, a man said to be of inferior ability. This last act of bureaucratic despotism was defeated, however, by the act of the Sovereign in returning the document unsigned, with the order that it should be transmitted to the newly appointed Minister for consideration.

Earlier in the semester, an attempt was made to appease the demands of the faculty and students, by the establishment of a new third clinic of general medicine, with Dr. Gustave Loebel, first physician of one of the smaller hospitals of Vienna, at its head; this, though recognized as an enlargement of the capacities of the University, commensurate with its requirements, yet could not be accepted as equivalent to the services of the distinguished Professor of Würzburg, nor at all satisfy their complaints. This obstinacy on the part of the minister is characteristic of the man, who is a self-willed, opinionated Jesuit; he is opposed to all the liberal educational views of the age, and has been in favor of entrusting all the schools and educational institutions in Austria to the Society of Jesus.

To his overthrow, and that of the whole ministry, the body of students (studentenschaft) contributed not a little by their action at the inauguration of the Rector on Oct. 10th. Jirizik's entrance to the hall was greeted with hisses from the 3000 students assembled; this he bore with the best grace possible, as well as the marked avoidance of him by every member of the Faculty.

On the announcement of the elevation to the ministry of his two friends Habietenck and Shaeffle, such a storm of disapproval arose from the crowd that "his excellence," after a moment's expostulation with minister Beust, seized his hat, and with angry mien rushed from the hall. The air was immediately rent with "Down with Jirizek!" "Pereat Jirizek!" till he was out of hearing, when the cries changed to "Vivat Beust," the popular protestant prime minister. Thus ended such an expression of feeling as was rarely if ever before witnessed within the ancient Aula of the University, and one that called forth universal approval from all who understood the grievances that gave rise to it. The students' wish has been gratified; for Jirizek is down, he has perished; but unfortunately their champion, Beust, has also been superseded by the President of the Hungarian Cabinet, Count Audrassy, and is now on his way to London as Ambassador to the Court of St. James. The students proposed to have a torchlight procession, in honor of the departing premier, and only with great reluctance gave up the idea, in compliance with his solicitations, expressed to the students in a special reception accorded to them. The other crying grievance of the hour, known as the Karsten affair (which you will remember as that of the Professor of Botany, who, at the last rigorosum, rejected in his department ninety per cent. of the applicants for medical degree, and thereby obliged them to pass all of their examinations again), is finally settled by the Dekan's announcement that this professor will not be invited to attend the next examination, an omission made possible by the fact of there being two examiners in each branch. To this step he was driven by the refusal of the old ministry to take cognizance of the affair. J. R. C.

INSTRUMENTAL TREATMENT OF DIFFICULT LABORS.—Dr. G. H. Kidd, President of the Dublin Obstetrical Society, in his recent address, entered at length into the question of this subject, illustrating his remarks by statistics based on the practice of the Rotunda Lying-in Hospital during the past eighty years. Dr. Joseph Clarke, who was master from 1787 to 1793, used the forceps but once in each 728 cases. As a contrast, in the three years during which Dr. G Johnson has now been master, he has employed the forceps once in 14·74 cases. The mortality of the mothers after tedious and difficult labors has fallen from 20·21 per cent. in Clarke's time to 7·38 per cent. of the present; and of those delivered with the forceps, from 50 to 6·86 per cent. Again, of children born by the aid of the forceps, the mortality had in the same period fallen from 50 to 4·9 per cent. That the use of the forceps was the cause of vesico-vaginal fistula, Dr. Kidd believed to be quite unfounded; on the contrary, this unfortunate accident generally resulted from not using the instrument. Though the use of the perforator and the practice of embryotomy had recently been reduced to a minimum, great advances had been made in the construction of the instrument required in the performance of this operation. In another class of labors, that of transverse presentations, mechanical skill had also done much to overcome most serious difficulties.—*Brit. Med. Journal.*

Medical Miscellany.

At the regular quarterly meeting of the Middlesex North District Medical Society, held Jan. 24th, 1872 (in Lowell), the following preamble and resolution were unanimously adopted:—

Whereas, In cities and large communities of people, it becomes necessary, for the sake of self-preservation in case of exposure to disease or epidemics, to establish Boards of Health having special care of this department of public welfare,

Resolved, That in the opinion of this Society, the members of the medical profession should always be represented in such Boards; that it is due no less as a matter of courtesy to a body of men whose education and business are so closely identified with all sanitary matters, than that the public health cannot be so properly subserved without such recognition. GEO. H. PILLSBURY,
Secretary.

THE Pittsfield Medical Association, comprising all the regular practitioners of Pittsfield, was organized January 10th, at the house of Dr. Paddock. Meetings of a medico-social character are to be held every Wednesday evening, at the houses of the members in rotation. The Association begins with nine members, and has subscribed for a dozen of the best medical journals. President, Dr. A. M. Smith; Secretary and Treasurer, Dr. J. F. A. Adams.

DR. HENRY D. BULKLEY.—The medical profession in New York have lost an eminent associate in Dr. Bulkley, whose death took place on the 4th instant. He was born in 1804, at New Haven, Conn., received his medical education at Yale College, and practised medicine in New York for more than forty years. Eminent as a dermatologist, zealous as a lecturer and teacher, esteemed as practitioner, citizen and friend, he has closed a life which has been devoted to the good of mankind and the advancement of scientific medicine.

THE JOURNAL IN VIENNA.—Our American correspondents and friends in Vienna will find the JOURNAL on file each week at the reading room of the Hospital.

ADULTERATION OF TEA.—The *Pharmaceutical Journal* (London) states that the Chinese adulteration of tea with the willow leaf is becoming an extensive trade. The cultivation of the willow for this purpose commenced ten years ago, in Shanghae, and has increased from year to year. The flavor of the willow leaf has no resemblance to tea. An intermixture of 10 to 20 p. ct. of the adulterant is practised; and it has been estimated that 400,000 lbs. of willow leaf were so used last year. The character of the impurity has not been investigated with reference to its detection.—*Mich. University Med. Journal.*

THE CULTIVATION OF THE CINCHONAS.—The *Pharm. Jour. and Trans.* notices accounts of cinchona cultivation at various points in the East Indies, in Jamaica, and in St. Helena, showing satisfactory results wherever the plant has been introduced. The bark from the hill districts of India assays with as good a result as the average South American. At the end of the present year, about 220 acres, in Jamaica, will be covered with cinchona plants. Upon 40 acres, the plants have reached the height of two or three feet.—*Ibid.*

NOTICE.—Our subscribers will oblige us by remembering that letters relating to Editorial matters should be addressed to the Editors; those relating to business, to the Publishers.

TO CORRESPONDENTS.—Communications accepted:—Case of Lead Palsy caused by the use of a Hair Preparation.

PAMPHLETS RECEIVED.—Massachusetts Institute of Technology. Seventh Annual Catalogue of the Officers and Students, and Programme of the Course of Instruction. 1871–72. Pp. 64.—Transactions of the Wisconsin State Medical Society for 1871. Vol. V. Pp. 197. (From J. T. Reeve, M.D., Secretary.)—The Illustrated Annual of Phrenology and Physiognomy. By S. R. Wells, Editor of the Phrenological Journal and Life Illustrated. Pp. 72.

DIED,—In Castleton, Vt., Joseph Perkins, M.D., aged 73. Dr. P. was for many years Professor of Materia Medica and President of the Trustees in Castleton Medical College, afterwards Professor in the University of Vermont; was one of the founders and several years President of the Vermont State Medical Society, and has long been looked upon as one of the most skilful and beloved of physicians.

Deaths in seventeen Cities and Towns of Massachusetts for the week ending Jan. 27, 1872.

Cities and Towns.	*No. of Deaths.*	*Prevalent Diseases.*	
Boston	137	Consumption	55
Charlestown	4	Pneumonia	32
Worcester	21	Scarlet fever	9
Lowell	18	Croup and Diphtheria	7
Milford	1		
Chelsea	5		
Cambridge	11		
Salem	13		
Lawrence	10		
Springfield	7		
Lynn	7		
Gloucester	6		
Newburyport	3		
Somerville	3		
Fall River	18		
Haverhill	1		
Holyoke	4		
	269		

GEORGE DERBY, M.D.,
Secretary of State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, Jan. 27th, 137. Males, 71; females, 66. Accident, 4—apoplexy, 2—inflammation of the bowels, 2—bronchitis, 3—congestion of the brain, 2—disease of the brain, 6—cancer, 3—colic, 1—chorea, 1—consumption, 27—convulsions, 5—croup, 3—debility, 9—dropsy, 1—dropsy of the brain, 1—dyspepsia, 1—diphtheria, 1—erysipelas, 2—scarlet fever, 3—gangrene, 1—disease of heart, 7—hæmorrhage, 1—homicide, 1—intemperance, 2—disease of the kidneys, 5—congestion of the lungs, 1—inflammation of the lungs, 14—marasmus, 1—old age, 3—pyæmia, 1—paralysis, 2—pleurisy, 1—premature birth, 5—peritonitis, 1—rheumatism, 3—scrofula, 1—suicide, 1—syphilis, 1—disease of spine, 1—tumor, 1—whooping cough, 1—unknown, 5

Under 5 years of age, 45—between 5 and 20 years, 15—between 20 and 40 years, 35—between 40 and 60 years, 21—above 60 years (including one, 102 years), 21. Born in the United States, 87—Ireland, 37—other places, 13.

THE
BOSTON MEDICAL AND SURGICAL JOURNAL.

New Series.] Thursday, February 8, 1872. [Vol. IX.—No. 6.

Original Communications.

SPINDLE-CELLED SARCOMA OF CHOROID. REMOVAL OF EYE. PROGNOSIS.

By Hasket Derby, M.D., Boston. Examination, illustrated by Drawings, by R. H. Fitz, M.D., Boston. Reported to the Boston Society for Medical Improvement.

It has been justly remarked that the connection of ophthalmology with general medicine is nowhere more marked than in the department of intra-ocular tumors. And in no part of the body can the initial development of a new growth be studied to greater advantage than in the eye, the slightest interruption in the proper performance of the functions of that important organ being so readily noted. A disease that in another portion of the frame might long lie dormant, without exciting a suspicion of its presence, is here at once forced on the attention. A slight progress, which inspection or palpation might in other regions fail to discover, becomes in the eye patent to the observer and may be demonstrated to the patient. Human life may be prolonged, perhaps saved, by the prompt performance of the operation of enucleation, if done while the optic nerve is yet in a healthy state and the cavity of the orbit uninvaded. It is naturally distressing to the surgeon to be compelled to advise the removal of an eye externally normal, seeing distant objects well, and reading, it may be, the finest print. But the certainty he has acquired of the presence of a disease malignant in its nature, and liable, if neglected, to affect distant portions of the body and to prove ultimately fatal, allows him no alternative, and he cannot but feel a just pride in the progress of a science that has placed in his hands the means of arriving at such a result.

These remarks are suggested by the following case:—

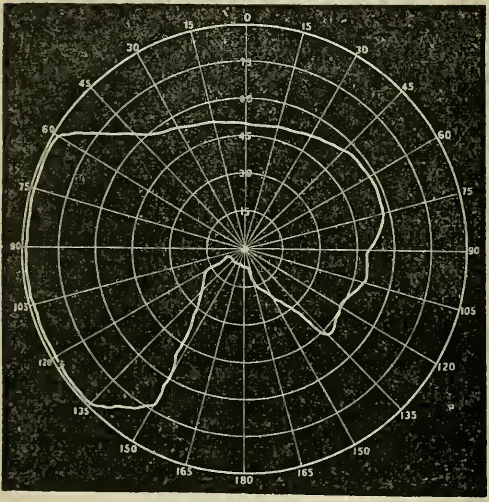
Mr. ——, of Montreal, aged 58, hale and hearty, in the enjoyment of excellent health, consulted me Sept. 26th, 1871. For a few weeks past he had noticed an impairment of vision of the left eye, attracting his notice especially when he looked down. In the street or house, with both eyes open, he seemed to see as well as ever. But, on closing the right eye, he noticed that the lower portion of all objects seemed to be obscured by a veil or shadow. He had carefully studied this phenomenon since first discovering it, and had consulted several ophthalmic surgeons; was still, however, in doubt as to whether the difficulty were progressing or had come to a standstill. But he inclined strongly to the latter opinion.

The appearance of the eyes was normal. The vision of the right was excellent ($\frac{20}{30}$) and its interior healthy. The left eye read the same size of type in the same distance. A rough examination showed an important limitation of the lower portion of the visual field. On enlarging the pupil, the ophthalmoscope at once discovered a well-marked rounded tumor, starting from, but apparently not involving, the upper edge of the optic nerve, and extending forwards towards the ora serrata, which, however, it did not reach, as healthy fundus was visible all around it. It projected well forward into the vitreous, and was mostly covered by the retina, the vessels of which were made out with perfect distinctness on its surface. A partial detachment had occurred at its base.

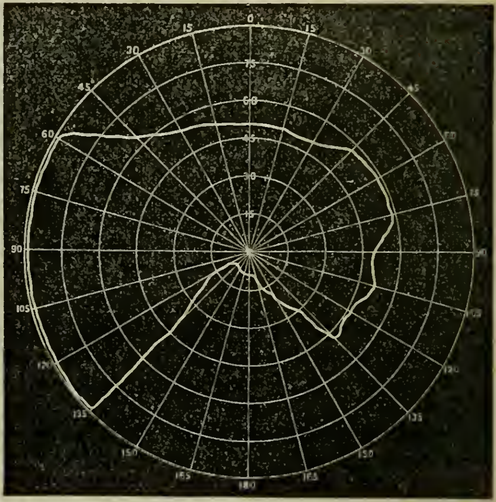
That the tumor was sarcomatous was of course highly probable. The eye had suffered no injury likely to cause a serous or hæmorrhagic retinal separation. A cysticercus presents different symptoms, and is seldom met with in the eye in this country. The age of the patient rendered a glioma improbable. Nothing in the history of the case pointed to a choroidal separation. Clearly, therefore, in enucleation lay the patient's only safety, and yet I was exceedingly loth to advise its instant performance, the vision of this eye being, except for the limitation of the field, as good as that of the other, and the patient himself thinking it very doubtful whether the thing were progressing. A brief delay was therefore agreed upon, warning being given that the slightest increase in the size of the tumor would render enucleation imperative.

I made a prolonged ophthalmoscopic examination, impressing the appearance of the tumor on my memory as firmly as possible, and then drew an exact plan of the field of vision by the aid of the perimeter, an invention of Prof. Förster, of Breslau, and the most satisfactory instrument for this purpose that we possess.

A full account of it may be found in the *Compte-rendu* of the Congress of Paris, 1867, p. 125. Its construction is based on the principle that the field of vision may be projected to greater advantage on the inner surface of a hollow sphere than on the usual plane. A broad half-circle of brass is accordingly set upright and made to revolve on an axis passing through its centre, describing thus the surface of half a sphere. Commencing at its centre, the brass arc is graduated in either direction to 90° on its inner surface, and along this surface, a little clip, capable of holding some conspicuous object, such as a bit of colored paper, is made to move by an ingenious mechanism worked from below. It will readily be seen that, by giving the arc different inclinations, the object may be brought into any portion of the visual field, the angle of inclination being read off from a dial-plate behind the upright support. A rest for the patient's chin is provided in front of the instrument, and twelve inches from a little ivory sphere, which serves as a point of fixation. The place on the graduated arc where the moving object passes the limits of the field of vision, and the angle at which the arc is set, being read off, the observation is transferred to its proper place on a printed chart, which is used in connection with the instrument. A series of such observations, made in the various meridians into which the arc may be brought, as indicated on the chart, gives a diagram of the field.



September 27th.



October 18th.

Two such diagrams are given herewith, the one being taken Sept. 27th, the other Oct. 18th. The centre of the figure marks the point of fixation, the irregular line the boundary of the visual field, which is seen to be seriously invaded below. A marked increase in size of this invasion is seen to have occurred in the second figure.

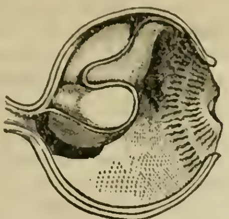
Moreover, the ophthalmoscope showed progress in the tumor. Oct. 18th, the optic nerve surface, previously visible over its whole extent, could no longer be seen. The operation was at once decided upon, and the eye removed the same afternoon, being handed to Dr. Fitz for examination within an hour of its removal.

Notes of Examination by Dr. Fitz.

The eyeball handed me by Dr. Derby soon after its enucleation, was at once placed in a 2 per cent. solution of chromic acid, the cornea having first been removed. Allowed to remain in this solution till it had become thoroughly hardened, it was then removed to a 50 per cent. solution of alcohol, in which it was permanently preserved.

A transverse section was made through

the globe and optic nerve in such a manner as to permit the relation of the nerve to the tumor to be made out. As can be seen from the accompanying drawing, the tumor occupied nearly one fourth of the cavity of the globe, extending forwards to within a short distance of the ora serrata, backwards nearly to the optic papilla.



The tumor is of an irregularly globular shape, made up, as it were, by the confluence of two rounded nodules. The uppermost portion, as seen in the drawing, represents the plane surface produced by the razor in making the section of the globe and its contents; the greatest thickness of the segment of the tumor cut away was two lines. It can also be seen that the retina is continuous over the greater portion of the tumor; a partial detachment had occurred, however, represented in the figure. The space between the coats of the eye and the tumor was occupied by a firm substance, the coagulated albuminous fluid probably existing during life. The free portion of the tumor bulged towards the axis of the eye, even beyond the same, and must have prevented a view of the optic eminence during ophthalmoscopic examination.

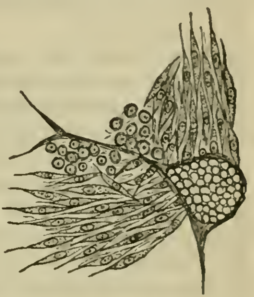
Thin sections were obtained from various portions of the tumor and optic nerve, the selection unfortunately not having been sufficiently varied to enable one to speak from positive information with regard to certain interesting points, especially with reference to the various stages of the alteration in the retina.

Transverse as well as perpendicular sections made through the optic nerve, showed that no visible alteration in its structure had occurred, a fact of great importance with reference to the prognosis in this case; also as to the advisability of an early operation. The structure of the retina immediately surrounding the entrance of the nerve was also found to be in an entirely normal condition.

Just anterior to the optic papilla, perhaps a couple of lines, at the very edge of the tumor, a number of sections were obtained which were of great interest as allowing one to determine the histological situation of the new growth.

The retina could be seen to ascend the surface of the tumor, the pigment epithelial layer intervening between the two. The ordinary so-called granulation tissue was not to be seen at this point. Groups of round cells varying in size, but with large distinct nuclei, round and oval, containing nucleoli, were arranged in an alveolar form; each group of cells, comprising from four to twelve individuals, was surrounded by a delicate fibrous border, and occasionally single large groups were separated into smaller ones by delicate fibrous septa. At rare intervals a small bundle of spindle-shaped cells, with long oval nuclei, could be seen to run for a short distance across the field, so that the possibility, even probability, was presented that the alveolar arrangement of the cells might be due to transverse and oblique sections of bundles of fusiform cells.

At this angle the choroidal bloodvessels, more properly bloodvessels of the tumor, were very large, bounded by a relatively thin wall, and were more numerous than elsewhere in the new growth. When a small-celled accumulation did take place in the choroid, it assumed the more or less alveolar form.



The structure of the tumor in general is represented in the wood-cut. A mass of large spindle cells, packed closely together, containing large, distinct, round and oval nuclei, as a rule with but one, though often with two, round, homogeneous, glistening, nucleoli. The cells are finely granular, the nuclei likewise. At no part of the tumor, so far as examined, were cells found which contained either fat or pigment.

Arranged in bundles of varying thickness, one often met with transverse sections, whence the groups of apparently round cells represented in the cut. The cross-section of a bloodvessel containing blood-corpuscles is also seen; in connection with the wall of the vessel are two small bands of fibrous tissue forming trabeculæ, supporting-beams for the cellular structure.

These trabeculæ were scattered irregularly through the tumor, often running to its free surface, at which point they spread fan-shaped beneath the vitreous body. The proper intercellular substance was exceedingly scanty, formed of delicate fibres and finely granular material.

Often, in fact as a rule, in the hardened specimen, except at the border, the appearance was presented as if only large, sharply-defined nuclei existed in a granular and fibrillary basis-substance. From the examination of fresh similar specimens, it is probable that this appearance is due to the method employed in the examination of the tumor, the cell-protoplasm being exceedingly destructible.

Towards the sclerotic more of the fibrous tissue was to be found in the tumor, the bundles of cells were smaller, the individual cells also not so large. At this part, the fibres of the chorio-capillaris were apparently split apart by the advancing growth, and were seen to project upwards into the tumor, often containing small accumulations of pigment granules. At the very edge of the tumor in this region, at a point where it was not to be stated definitely, whether one had to do with choroid or sclerotic, though probably with the former, lines of small, round cells were found to lie between delicate, more or less parallel, fibres. In a general way it might be asserted that an advance of the new-growth into the proper tissue of the sclerotic had not taken place.

As a whole, the tumor was quite vascular, the bloodvessels small, but numerous, the walls exceedingly thin.

The tumor having been sent away before the sections were thoroughly examined, those cuts which represent the retina in connection, show it to be so thoroughly changed that no elements characteristic of its structure could be found. The sections obtained were from that portion of the tumor, as seen in the first wood-cut, from which the segment had been cut away.

At the very surface of the tumor was seen a limiting membrane, beneath which was a limited layer of cells, some six in depth. These cells were closely packed together, contained round, single-nuclei with nucleoli. The upper layers were apparently round, with delicate intercellular fibres; the lowest layer, that immediately bordering upon the spindle-cells of the tumor, was made up of anastomosing stellate cells, immediately surrounded by a considerable amount of hyaline intercellular substance, in which were occasional minute granules and very delicate fibrils. So far as this part alone of the tumor is concerned, a more myxomatous character was presented. Occasionally, also, in the same vicinity, resemblances to the structures of the glioma were seen.

From the fact, however, that these deviations from the character of the general growth were limited to the position of the retina, the preëxisting anatomical peculiarities of the same were probably the direct cause of the varied pictures.

In a case of sarcoma the prognosis is naturally grave. The disease is, of course, essentially malignant, yet if any exception exists to this as to other rules, the present should be an instance of one. Spindle-celled sarcoma progresses very slowly. In the case of our patient, the growth was of moderate size and strictly confined to the eyeball, the optic nerve being healthy, and the orbital cavity free. General infection through the lymphatics or circulation is ordinarily preceded by an extension of the disease in the immediate vicinity, which had not here had time to take place.

Prof. Weber is referred to by Knapp* as reporting two cases of choroidal melanosis, on which he had operated, the one thirteen, the other twenty years before. Both patients were living. In a case of Prof. Dor's, reported by the same author, the disease, a spindle-celled sarcoma, made its appearance in 1858, and was operated on in 1860, when the eye was in a state of glaucomatous inflammation, a period considered extremely unfavorable. No recurrence had taken place nine years later.

In the present case, the operation should have been performed as soon as the tumor was diagnosticated, the delay having been a mistaken kindness to the patient. It was, however, so short and the progress of the disease so inconsiderable that it is unlikely to have been a source of injury.

The drawings of the gross and microscopic appearances were made by Dr. Fitz on the block, thereby materially lightening the labor of the engraver. They speak for themselves. H. D.

CASE OF LEAD POISONING FOLLOWING THE USE OF A HAIR PREPARATION.

By J. M. Crocker, M.D., Provincetown.

The following case of lead palsy, from using a "Hair Preparation," may not be uninteresting. R. W., aged 55, laborer, was attacked with what appeared to be muscular rheumatism, affecting mainly the deltoid and other muscles of shoulders, last February. When first visited, he was suffering from pains which he had felt more or less severely for a month or two. Both arms were in this manner crippled. Ordered cotton batting to affected parts, lemon-juice and opiates internally. Made quite a rapid recovery, but when seen in March following, he was suffering from an almost complete paralysis of extensor muscles of fingers and hands, with dropping of wrists. He could readily and forcibly grasp, but found difficulty in letting go. No lead lines about gums could be seen. Said he had had several attacks of colic within a few years. The water used for drinking purposes was obtained from a brick well, and stood in a wooden bucket. Ordinary cooking utensils were used in his family. Subsequently, upon inquiry, I discovered that for fifteen years had used a "hair renewer," made by himself of three teaspoonfuls lac sulphur and two teaspoonfuls sugar of lead to a pint of water. With this he had drenched his hair and scalp as often as once a week. Under use of iodide of potassium and galvanism has made a good recovery, the hair-dressing having, of course, been discontinued. The urine was not examined after treatment began. No colic since use of sugar of lead was stopped.

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* Die intraocularen Geschwülste, p. 209.

Reports of Medical Societies.

BOSTON SOCIETY FOR MEDICAL IMPROVEMENT.

F. B. GREENOUGH, M.D., SECRETARY.

Nov. 27th, 1871.—*Bright's Disease.*—Dr. Fifield reported the case.

D. F., aged 58, Scotchman. Strong, tough, and always healthy. Forgeman by occupation. First applied for advice Oct. 26th, complaining of violent pain in right hypochondrium, just beneath the false ribs. This pain was accompanied with vomitings of a greenish liquid, and the case was considered one of bilious colic. A pill consisting of a grain of opium was given; abstinence from all food and drink advised till the nausea and vomiting should cease.

27th.—Much better.

28th.—Has taken a dose of castor oil, and the bowels have been freely moved.

30th.—Has returned to his work at the forge.

Nov. 6th.—Again complained of severe pain in left hypochondrium, beneath the ribs, exactly in the same place as felt before in the right side. The vomitings consisted of the same liquid as before, the color a peculiar, light green. Pulse and tongue normal. The most careful examination of the parts where the pain is complained of, fails to reveal anything abnormal. No pain is caused by deep pressure over the situation of the kidney. Fine crepitation is heard at the base of left lung, which disappears after a few deep inspirations. No change in complexion of any part of the body. The patient declared that he passed no larger quantity of urine than he had ever done, and that he never rose in the night to urinate; that he had never been subject to headache or vomiting, and that his sight was perfectly clear. Same treatment to be pursued as before. Asked that a portion of the urine might be saved.

7th.—Vomiting still present. Not so much pain. Impulse of the heart heavy, and widely extended. No murmur. Crepitation at base of the lung as before. Pulse 120. Temperature normal. This seemed so extraordinary that the accuracy of the instrument was doubted, but some experiments showed it to be correct. No urine had been saved. No medicine to be given. A few grains of calomel were placed on the tongue to check vomiting and perhaps move the bowels. Patient had not slept well.

8th.—Vomiting has ceased. No pain. No motion of bowels. Is very drowsy; can be roused and made to sit up and talk, but if allowed to lie down is instantly asleep. This condition is not the result of any opiate, as the patient has had none. Same crepitus at left base disappearing as before. No evidence of any effusion into any cavity of the body. No œdema of the feet, hands or face. Patient had ruined the specimen of urine saved by spitting into it. On looking at the patient's mouth, he was found to be salivated from the calomel given yesterday. The suspicion that I had a case of Bright's disease to deal with became almost a certainty to me, for I have never noticed such speedy salivation when this disease has not existed. Strong representations were made of the necessity of saving a specimen of the urine, and some was promised to be sent to me during the day. Three compound cathartic pills were ordered, to be followed by fluid extract of senna, if no motion was procured within five hours.

At 9 o'clock, the evening of the same day, I was sent for on account of the continued drowsy state of the patient, although he had been restless at times during the day. The bowels had been well moved. A specimen of the urine was now given me. Specific gravity 1015—one observer said 1012. Albumen present both by heat and acid. Rather small in quantity, but gives a fair deposit in the tube. Microscope shows one cast in the field, granular at one end. No blood corpuscles. Prognosis unfavorable.

9th.—Patient feels quite well. Pulse 90. Temperature normal. No pain. No vomiting. Specific gravity 1015. Albumen abundant. Three casts in the field, none so perfect as that of yesterday. Patient has been able to make his will.

10th.—Still feels well.

11th.—Very small amount of albumen. Not enough to give a deposit.

13th.—Very restless. Albumen abundant. Urine same. I am besought to give an opiate, but give ℥ss. bromide of potass. instead. Sent for at night to give an opiate, as the bromide had effected nothing. Refused to give any. Urine the same. Patient surrounded with friends, and talks with them in a manner apparently clear. His wife thinks that he was once slightly convulsed to-day.

18th.—Slept all day, till 4 o'clock, P.M., when he woke and conversed. Fell asleep again about 6 o'clock, which sleep grew more and more heavy until, at 8 o'clock, he stopped breathing without a struggle.

His shopmates now say that during the summer he had frequent headaches with vomiting.

Dr. Stedman tells me he had consulted him for these headaches and vomitings.

Post-mortem examination shows the lungs curiously dark in spots, evidently from the deposit of carbonaceous matter inhaled in working at the forge. Heart much hypertrophied. No disease of valves. Supra-renal capsules had been the seat of a very considerable effusion of blood. On the left, some of the blood had escaped and passed downwards beneath the fascia, covering the psoas and iliacus muscles. Kidneys normal in size, dark red in color.

Autopsy by Dr. Fitz.

After a careful examination of the specimen, it seems that the enlargement of the supra-renal capsules was due to a hæmorrhage in the central soft pulp. The cortical substance presented a relatively normal appearance. The hæmorrhage must have occurred at least weeks ago, as the coagulum had softened centrally; and as a result we had reddish-brown fluid, of a creamy consistency, bearing a strong resemblance to the "coffee-grounds" vomit.

Through the hæmorrhage an enlargement of the capsules had taken place, their size to be compared with that of a small lemon.

There was no increase of fibrous tissue between capsule and kidney, showing that no chronic irritative process had occurred in the former. I was unable to find the arteries leading to the organ. A vein leading from the same contained an ante-mortem coagulum. It seems very probable that rupture of one of the capsules had occurred, whence the effused blood found in the fascia lying on the curve of the diaphragm and the psoas and iliacus muscles.

An examination of the kidneys showed that without any apparent diminution in size, they were more firm than is usually the case. The capsule was detached with difficulty, and a thin layer of renal parenchyma was pulled off with the capsule.

The surface of the kidney thus bared was roughened without presenting marked granulations, so called. On each kidney were found two or three patches of considerable size, projecting above the surface of the kidney a line or two; the border was more or less serpentine, and the renal structures here more flabby and pulpy than elsewhere. The color, also, was of a grayish hue, whereas elsewhere it was of a dark red.

After cutting through the kidney—its substance was abnormally resistant—the cortical substance in general was diminished in amount, and no sharp distinction between straight and convoluted tubules could be made out. The malpighian corpuscles could not be recognized. In the swollen portion previously referred to, the cortical substance was increased in volume, pale and opaque; malpighian corpuscles occasionally to be made out with the naked eye. The pyramids presented nothing unusual. On microscopical examination of the atrophied portions of the kidney, occasional fatty tubuli were found, and a tolerably constant increase in the amount of interstitial tissue, most marked in the immediate vicinity of the malpighian corpuscles. Many of these were very much smaller than usual, and more homogeneous in appearance, little or no evidence existing of a capillary plexus within the thickened, condensed capsule. In the swollen portion, there was no marked alteration of the interstitial structure. The convoluted tubules, however, were enlarged in volume, their epithelium being in a granular condition.

Another interesting feature in connection with the kidneys, perhaps, also, in connection with the source of hæmorrhage in the capsules, was the presence of a small aneurism of the renal artery. An elongated, saccular aneurism, an inch in length and a half inch in diameter, filled with an old, firm, partially decolorized coagulum, a portion of which had become organized and formed part of the walls of the vessel.

In answer to a question, Dr. Fifield stated that there were no symptoms that might have been attributed to disease of the supra-renal capsules.

Dr. Williams spoke of a patient who had consulted him for dimness of vision. The ophthalmoscope showed structural changes in the eye, such as are found in Bright's disease. The patient was advised to work less and to rest. He had never considered himself a sick man, although he had had some headache and nausea. He was seen again, and reported himself as better, but he did not look so, and some gastric symptoms had appeared. He went into the country, and died in a fortnight.

Dr. Wadsworth said, with regard to the frequency of changes in the eye in Bright's disease, that he had for some time past examined every case that had been admitted into the City Hospital, and had found that in about 25 per cent. trouble in the eye existed.

Dr. Fifield said that the strange part of these cases was, the great and sudden variation in the state of vision. In some cases vision will be very much affected for a few days, and then will become almost normal.

Dr. Wadsworth spoke of a case where, judging from the history, there must have been some changes in the retina, and yet it had returned to an almost normal condition. The changes found in these cases are, an hypertrophy of the connective tissue and a sclerosis of the nerve-fibre, and also some serous effusion.

Dr. Williams thought that any improvement of vision must be due to the absorption of the effusions, as of course the retinal tissue or nerve fibre can never be restored to its normal condition after structural changes have taken place.

Nov. 27th.—*Pain in the Anus.*—Dr. Wellington reported the case.

In the year 1839, a gentleman, then 25 years old, whose general health was excellent, was waked one night by an intense pain in the anus. This pain he described as excruciating almost beyond endurance. Unable to lie in bed, he got up and went into an adjoining room. Soon the pain seemed to dart from the anus to the head. This was followed by a peculiar sensation in the head as though the brain was whirling. Unconsciousness followed, and the next thing our patient remembers was that he was lying on the floor, with a dull pain in the head, but entirely free from the pain at the anus. How long he had lain unconscious he had no means of knowing. He returned to bed, went to sleep, and awoke in the morning feeling well.

No disease could be detected at the anus, or in the lower part of the rectum. There were no hæmorrhoids. Neither fissure, ulcer, nor inflammation of any sort existed at that spot. No pain attended the act of defecation. The bowels were not, and had not been, costive. Nothing could be found which would explain this severe attack of pain.

Subsequently, for many years, the patient's health continuing good, he had occasional attacks of the same sort of pain, but less severe than that just described. They always came on in the night, lasted from ten to fifteen minutes, and then gradually subsided, leaving no evil consequences. His habit was to lie as quietly as he could, and let them take their course.

In the year 1866, the gentleman then being 52 years old, an attack occurred similar to the one twenty-seven years before. So great was the agony that he got out of bed and began to walk about the room. As on the former occasion, the pain darted from the anus to the head, the brain seemed to whirl, and he became unconscious. His wife was waked by the noise of his movements, and found her husband sitting in a chair, insensible, his face and arms bathed with a cold perspiration, and breathing stertorously. Consciousness soon returned, and vomiting followed. The pain at the anus had disappeared. No bad symptoms supervened.

As before, no disease of any kind could be discovered about the anus, and the general health was good.

During the last five years, there have been occasional attacks of the pain, sometimes severe, at other times slight, lasting from ten to fifteen minutes, and always occurring in the night. During the last year, they have diminished in frequency.

I do not know what name to give to the disease I have been describing, unless it be that of "neuralgia of the anus." Such a disease is occasionally mentioned by surgical writers, but in a very general way. Ashton speaks of it as having a real existence, and as occurring in anæmic individuals, in females whose systems have been depressed by menorrhagia, or frequent childbearing, particularly if the labors have been attended by floodings and the like. Dr. Van Buren, of New York, thinks that in most cases of so-called neuralgia of the anus a local lesion may be detected, if careful examination be made; but he admits that *possibly* we may "encounter an example of pure nervous pain for which there is no cause." Druitt dismisses it with the remark that "it is a common disorder of children and of gouty adults, and in either case is best treated by purgatives." Erichsen, Cooper and Brodie say nothing about it. In the present case, the patient was neither anæmic nor debilitated. He was not a child or a gouty adult. On the contrary, with a single exception, he was a man in good health.

The cerebral complication was the most marked feature. For the time, this appeared like sudden apoplexy. It occurred only when the patient, in consequence of the severity of the pain, had left the bed and was walking about the room, and it subsided as suddenly as it came.

The case received no treatment. The attacks always occurred in the night, and were so sudden and passed off so soon that there was no time for local applications. In the intervals the gentleman was perfectly well, and he could not be made to see the propriety or necessity of taking medicines to "improve his general health."

Foreign Correspondence.

DIAGNOSIS OF SYPHILIS BY THE MICROSCOPIC EXAMINATION OF THE BLOOD.

VIENNA, January 12, 1872.

MESSRS. EDITORS,—I have just returned from a meeting of the "Gesellschaft der Aerzte," at which was announced a discovery of the most stupendous importance. I am eager to be the first to herald to the new world, through your pages, the greatest success—I may venture to say—as yet achieved by the microscope, to wit, the certain diagnosis of syphilis. I will give briefly, from memory, the course of procedure which led to this grand result, having first recorded the name of the propounder of the new theory as Dr. Lostorfer. Wishing to make a series of examinations of blood from syphilitic patients, Dr. L. applied to Prof. Zeissl, in August last, who at once placed his wards at the service of the investigator. The manner of conducting the researches consisted in taking a drop of blood, placing it immediately between a slide and covering glass, then setting the specimen under cover. A large number of slides were thus prepared, and daily examined microscopically with a No. 10 immersion lens, Hartnack. The first two days nothing abnormal presented itself; but, on the third, minute shining bodies were discerned, which grew from day to day, until they attained the size of red blood-corpuscles. The shape was, in most instances, round, but modifications of that form were here and there noticed; they were all, however, provided with tapering processes or "sprouts." The number of these corpuscles to be seen at one time within the field of the microscope was variable, amounting in only one specimen to fifty. A month later these objects were still visible. A solution of sugar, as well as several other solutions, caused them to shrivel up, become, as it were, folded upon themselves, lose their shining aspect, and cease to grow. Cold was also found to affect their development, inasmuch as a temperature below 10° Reaumur (54° Fahr.) put a stop to all growth.

To prove the connection between these bodies and syphilis, very many experiments were made with healthy and diseased blood, and the diagnosis confirmed beyond the possibility of doubt.

Blood was then daily examined while the patients were undergoing treatment with mercury (einreibungen), and, after a certain time (in one case twenty-five days), during which the number of corpuscles was steadily decreasing, they had wholly vanished from the field. After these experiments, Dr. Lostorfer submitted himself to Prof. Stricker and later to Prof. Hebra to have his power of diagnosticating syphilis, by the microscopic appearances of the blood, put to the test. On various occasions he received from them numbered slides with blood of syphilitic and non-syphilitic individuals. To their astonishment, he unerringly selected from the preparations those where the blood was tainted with syphilis, with the exception that on certain slides the blood was pronounced to be in a condition allowing of no conclusion being arrived at.

The discoverer gives the name of syphilitic corpuscles to these bodies, which, he said, must originate in one of two ways—either from germs always present in the blood, but stimulated to growth by the syphilitic virus alone, or from such introduced bodily into the blood at the time of infection.

In conclusion, he read the records of a number of cases with his microscopic observations of the blood from day to day.

As Dr. Lostorfer ceased speaking, a burst of genuine enthusiasm escaped from the assembled physicians, while Prof. Skoda rose to greet the hero of the evening, as the proclaimer of what was destined to prove one of the most important discoveries of the age. He regretted that it was not customary in Austria to give medals or other rewards of merit in such cases, stating that, had this statement been made in Paris, he would have been crowned, as he deserved.

Prof. Stricker detailed the precautions taken to avoid error or deception in each of the trials to which Dr. L. was subjected. The latter's selection of diseased blood was always correct, and decided, except in the few ruined specimens. To ensure the purity of the healthy blood, he had taken his own and that of his servant. After a while, Dr. L. distinguished between these two, inasmuch as the professor's was thicker and "dirtier."

Prof. Hebra confirmed all that had gone before, and said he had been so much struck with the discovery, that Prof. Stricker's blood "contained more filth (schweinerei) than that of any other living man," that he had instituted researches for similar peculiarities among his patients, but, thus far, without result. No words are needed to show the immense field for research, thus suddenly thrown open to investigators, nor can the practical results likely to proceed from this study be overestimated. Microscopes all over the world will now be turned toward these new constellations, and their every freak recorded.

Theories of unity and duality will soon cease to vex the earnest student and practitioner, and half the skill and learning of dermatologists is made of no value by this simple and certain indication of the presence of the syphilitic virus. The testimony of two such renowned and incredulous men as Professors Stricker and Hebra is a convincing proof that these corpuscles are not bubbles to be pricked by the next impertinent microscopist. I trust I have not omitted nor misstated any of the main points of Dr. Lostorfer's paper, but if so, will send you in expiation of my offence a copy of his article, as soon as printed.

I am yours, &c.,
James R. Chadwick, M.D.

Cats and dogs are proved to be insusceptible to the vaccine disease.

Selected Papers.

HÆMOPTYSIS IN CONSUMPTIVE PATIENTS.

By D. Francis Condie, M.D., of Philadelphia.

Hæmoptysis, in the description of tubercular consumption given in the books, is very generally enumerated as among the most common of its prodromes, and as a predominant symptom during some period of its course. This, so far as my own experience goes, is an error, and one very liable to mislead those who have not studied with close attention the disease at the bedside of the sick. It is true that the deposition of tubercular matter in the lungs may be preceded and accompanied by hæmoptysis, but by no means so generally as to warrant its being ranked as among the premonitory, much less as a diagnostic symptom of tubercular phthisis.

Of three hundred and sixty-nine cases of tubercular consumption, very full notes of which I have kept, hæmoptysis occurred in eighty-seven (that is, in about 24 per cent.). In two hundred and eighty-two of the cases it neither preceded nor was present throughout the attack. The absence, therefore, of hæmoptysis, is not to be received in any case as an indication of the absence of pulmonary tubercles, nor can the occurrence of pulmonary hæmorrhage be received as an indication of a future or present tuberculosis of the lungs.

In eighty-seven cases of consumption in which pulmonary hæmorrhage occurred under my observation, the hæmorrhage preceded in forty the first symptom of the deposit of tubercular matter some considerable time—say two, three, five, six, or even twelve months; in some cases, however, it preceded the indications of tuberculosis only a few days, in others, again, it occurred at the very onset, so far as I was enabled to judge, of the tubercular deposit. In twenty-nine cases, the hæmorrhage occurred at different periods during the progress of the disease, and in its latter stage in eighteen cases in which the presence of cavities in the lungs was detected upon auscultation.

* * * * *

As to the cause of the hæmoptysis which is met with in those who are laboring under tubercular consumption, or who are predisposed to an attack of the disease, it varies, according to my observations, in different cases, and certainly at different stages of the disease. In some cases it is evidently the result of a state of hyperæmia or congestion of some portion, of more or less extent, of one lung or both, the overloaded vessels relieving themselves by a percolation of blood or by a rupture of the coats of one or two of them. In other cases, the hæmorrhage is caused by the opening, from ulceration in its neighborhood, of an artery; in others, again, we have traced it to a slow but constant exudation of blood from the mucous coat of the more minute ramifications of the bronchial tubes. In the latter case, the matter expectorated consists of a mucoid fluid intimately mixed with blood, giving to the sputa a color like that of the rust of iron—sometimes the sputa have very much the color and consistence of currant-jelly. So far as I could judge, hæmoptysis from the first-named cause was most generally found to precede the deposition of tubercular matter or to occur in the early stage of tuberculization, or when the circulation in some part of the lungs is impeded by a large cluster of unsoftened tubercle. Hæmorrhage from ulceration may occur at any time in the course of the disease, while the bronchial hæmorrhage is most generally confined to cases of tubercular bronchitis or pneumonia, though it may be met with in the latter stage of uncomplicated cases of pulmonary phthisis.

Occasionally, the hæmorrhage which precedes the attack of pulmonary consumption, or which occurs towards its close, is quite profuse, and has a tendency to recur again and again, at shorter or longer intervals. During the course of the tubercular attack, the hæmorrhage met with is seldom to any great extent, and when once it ceases, seldom returns.

What influence, for good or for bad, the occurrence of pulmonary hæmorrhage in cases of consumption has on the latter, the data in my possession are not sufficient to allow me positively to determine. Judging, however, from what facts I have been enabled to collect, I should infer that the influence exercised by the hæmorrhage, one way or the other, upon the character or duration of the disease, was by no means very decided. It may be, that a moderate hæmorrhage occurring just preceding the development of tubercles may have a tendency rather to retard than to promote such development. On the contrary, however, when the discharge of blood is considerable and repeated, an injurious effect may be anticipated. When hæmorrhage occurs during the course of tubercular phthisis, even if only to a moderate extent, it cannot fail, indirectly, to have an injurious effect, by standing in the way of the patient taking that amount of active out-door exercise which is so important an item in the management of all cases of tubercular deposit, and at the period when most benefit is to be derived from such exercise. Profuse hæmorrhage from the lungs occurring in the latter stages of tubercular consumption—which fortunately is rarely the case—could not fail by its debilitating effect to accelerate a fatal result.—*American Jour. of the Medical Sciences.*

Medical and Surgical Journal.

Boston: Thursday, February 8, 1872.

THE OFFICE OF CORONER.

We are indebted to a friend for a copy of the petition presented to the Legislature a few days ago, which has in view the reorganization of the laws relating to the office of coroner, and the appointment of thoroughly reliable men. The views presented in the petition are so sound, and express so fully the feelings of medical men, that we copy the petition in full.

At various times during the past few weeks the attention of the public has been called to the statement that a certain unnamed but well-known coroner of this city had been guilty of gross malfeasance of office, and had fraudulently obtained money from the public treasury as compensation for services never performed.

These very serious, yet vague and indefinite charges, though directed against an individual, coupled with the fact that fraud could be so easily perpetrated, have aroused the suspicion of the community against all coroners, and have impaired the public confidence in the integrity and ability of a respectable class of our citizens, which includes several of the best known and most respected physicians of our city. The nature of these accusations subject all coroners to public odium, and thus *many* are obliged to suffer reproach by reason of the misdeeds of a few.

Actuated by a desire to discover the guilty parties who have thus abused their official privileges, and to place the responsibility where it properly belongs, as well as to remove the stigma which attaches to the name of coroner, your petitioners request your honorable Committee to institute a thorough, searching and impartial investigation of all the circumstances attending the alleged fraud. To aid the Committee in their investigation, we submit the evidence of fraud in fifteen cases, all having died from natural causes, certificates of which have been filed in the City Registrar's office, and on which it is claimed "*post-mortem* views" have been held.

Your petitioners are encouraged to believe that should this subject receive the careful consideration which its importance demands, the Committee will recommend the adoption of such measures as will not only punish the guilty and free the service of disreputable officials, but also tend to restore the public confidence, and surround the office with such laws and restrictions as will prevent a recurrence of the crime.

This occasion presents a favorable opportunity for a thorough revision of the statutes governing the appointment of coroners, and regulating their duties. But slight investigation will be requisite to convince the honorable Committee of the apparent necessity of an entire and radical reform in this direction.

We would respectfully submit for the consideration of the Committee a few suggestions which influence the petitioners in desiring a modification of the statutes.

In the first place, your petitioners would recommend a reduction in the number of coroners for the city of Boston. Our experience and the history of other cities warrants the assertion that the present number is far in excess of the number actually required for the successful discharge of the duties of the office. Physicians and officials from other cities of our own and foreign countries, have remarked with surprise the unusual number of coroners in this city, exceeding that of any city in the world. London, with its immense population, has but four coroners; New York has eight, Philadelphia, New Orleans and Chicago *two* each; San Francisco, Baltimore, Washington, D. C., and Cincinnati but *one* each, while Boston has *twenty-five*—or *three more* than all these great cities combined. As a natural result of this excessive number, but comparatively few have any extensive experience in the business, which would tend to make them more effective as officials charged with great responsibilities. For a period of two years ending Dec. 15, 1871, the whole number of inquests held in Boston was 187; the number of "*post-mortem*" views during the same time was 702, and the total amount of fees disbursed for the entire service was $3,424.00.

Several of the coroners have held no inquests whatever, and by far the greater portion of the labor has been performed by a quarter part of the entire number.

The rapid increase of our population, and the proportionate increase of accidental, mysterious and sudden deaths, do not demand a corresponding increase in the number of coroners, but the adoption of a system whereby the responsible duties of the office may be more satisfactorily performed, and the interests of the public more generally subserved.

We would also suggest the expediency of establishing a department or bureau where shall be registered all facts and records pertaining to inquests and *post-mortem* views, these records to be at all times accessible to the public.

Under the present system, if such it can be termed, no records of *post-mortem* views are made by the coroner, or demanded by the law, the only evidence of such views being the coroner's bill for services on file in the city treasurer's office. The absence of any system of registration, by means of which the friends of "unknown deceased" can ascertain their fate, is an evil which should be remedied. Frequently, the only clue of the fate of a relative or friend is a brief notice published in the daily papers, of which no record is preserved.

Another recommendation which your petitioners would especially urge is an increase in the amount of bonds required of a coroner. The present bonds of five hundred dollars seem insignificant when compared with the opportunities presented of obtaining money unlawfully. We would earnestly recommend that the amount be increased to five thousand dollars at least. Occasionally, the coroner is compelled by circumstances to become custodian of considerable sums of money found on the persons of deceased upon whom inquests are held, and a more strict accountability should be required of officials.

Your petitioners indulge the hope that the present favorable opportunity for modifying the statutes, establishing proper safeguards, and advancing the public interest, will not pass unimproved. We submit these considerations for the mature deliberation of the committee, relying upon your ability to recommend and urge the adoption of such measures as will tend to secure a more practical and efficient performance of responsible professional duty.

Third Annual Report of the Children's Hospital.—The report of the Children's Hospital, which has just been issued, assures us that the institution has done a good work in the past year; that it has been steadily gaining the interest and confidence of the community and of medical men, and may now be regarded as an established public charity.

During the past year the number of children received as inmates has been ninety-seven; making the total, since the opening of the hospital, one hundred and ninety-six.

The managers speak of the condition of poverty and degradation which is the birthright of the poorer classes in our community, and of the poor hygienic circumstances of those who are naturally to become the inmates of hospitals. It is known to all medical men that want of pure air and uncleanliness are fruitful sources of disease. The condition of ignorance which marks the lower classes of the community is constantly acting to debase the tone of society; it allows only the lowest wages for labor, and it leads to the squandering in improvidence for successive generations of that which should support in comfort. Agencies such as these are constantly at work to lower the vital force of the poorer classes of society, and to render the children an easy prey to the attacks of disease. The aim of all judicious medical treatment is directed not alone to relieve immediate disease, but by a thorough change of life and circumstances, by supplying a rational course of diet and regimen, by substituting for ignorance and thoughtlessness, and the thousand indiscretions which they suggest, judicious and gentle nursing, warmth, nourishment, light and air—to lay the best foundation, in fact, for relief from disease, either acute or chronic. Such facts as these are constantly seen by the visitors of the poor, convincing them that depressing agencies are continually working in the homes of poverty; that they are the most natural and most prolific causes of disease; and that, when disease comes, they still constitute the chief hindrance in the way of recovery. The inmates of the Children's Hospital have, almost invariably, been subjected to influences such as these, and the diseases under which they labor are the natural sequence of such.

In offering to the poor, therefore, an institution where their sick children may be judiciously and kindly cared for, the managers feel that a good has been done which should merit the confidence of the public, and that the benevolence of the community will not fail to make it permanent.

The report of the medical staff of the hospital and the statistical table of the medical and surgical cases treated, is interesting to members of the profession.

Dr. Chadwick's Letter.—The letter written from Vienna by Dr. Chadwick will be read with interest by members of the profession, treating as it does of a scientific matter of considerable interest, and without doubt many important points in the etiology of syphilis and also of gonorrhœa will be worked up by the German scientists. For the honor of our own country, however, and in order to show what has been done in the same direction on this side the ocean, we must refer our readers to the investigations of Dr. Salisbury, of Cleveland, Ohio, especially to his article describing "Two new Algoid Vegetations, one of which appears to be the Specific Cause of Syphilis, and the other of Gonorrhœa," in the *American Journal of the Medical Sciences* for January, 1868, and to other articles by the same author.

American Medical Association.—The Twenty-third Annual Session of the Association will be held in Philadelphia, Pa., May 7, 1872, at 11, A.M. Reports will be made by committees on subjects specially assigned, and other business will be transacted as in previous sessions. Physicians desiring to present papers before the Association should observe the following rule:

"Papers appropriate to the several sections, in order to secure consideration and action, must be sent to the Secretary of the appropriate section at least one month before the meeting which is to act upon them. It shall be the duty of the Secretary to whom such papers are sent to examine them with care, and, with the advice of the chairman of his section, to determine the time and order of their presentation, and give due notice of the same. * * * "

The following are the Secretaries of sections:—*Chemistry and Materia Medica*, Ephraim Cutter, Boston, Mass. *Practice of Medicine and Obstetrics*, Benj. F. Dawson, New York, N. Y. *Surgery and Anatomy*, W. F. Peck, Davenport, Iowa. *Medical Jurisprudence, Hygiene, and Physiology*, E. L. Howard, Baltimore, Md. *Psychology*, John Curwen, Harrisburg, Pa. Secretaries of all medical organizations are requested to forward lists of their delegates, as soon as elected, to the Permanent Secretary. Other information can be obtained of the Permanent Secretary, Dr. W. B. Atkinson, 1400 Pine Street, Philadelphia.

PHOTOGRAPHIC REVIEW OF MEDICINE AND SURGERY.*—We have already spoken in terms of commendation of this beautiful and interesting addition to our professional literature. By exchange we have been furnished with the numbers of this periodical for October and December, and these and future numbers can be seen by physicians at our office. They certainly furnish the most beautiful representations of disease which have been brought to our notice. The Editors not only solicit subscriptions, but offer to publish representations of disease to physicians and surgeons who may furnish them with negatives of the cases.

The subjects represented in the numbers now on hand are Pseudo-hypertrophic Muscular Paralysis; Deformity of the Leg; Epithelioma of the Face; Aneurism of the Aorta; Condylomata of the Prepuce; Fatty Tumor of the Neck; Venous Tumor of the Lip; and a case of Extirpation of the Thyroid Gland.

CASE OF DISLOCATION OF THE LEFT HIP; REDUCTION BY BIGELOW'S METHOD.—At the University College Hospital, in the service of Mr. Erichsen.

G. B., a stout, muscular man, aged 31, a surgeon, was admitted on Dec. 18th, at 11, A.M., with all the ordinary signs of a dislocation of the hip into the sciatic notch. The dislocation had occurred thirteen hours previously, and happened thus:—The patient was leaving a railway carriage while the train was still moving, when he stumbled and fell down between the moving train and the side of the platform. He fell on his left side, with his head towards the engine. His left thigh was flexed, and his right extended. He thus got jammed between the carriage and the platform, with his left knee against the carriage and his back against the platform. His back remaining fixed against the platform, and his left thigh being forcibly flexed by the moving carriages, and the space between the carriage and the platform being insufficient, the head of the bone was forced out of the socket when the thigh reached flexion to about a right angle with the body. He saved himself from falling on the rails by clinging to the footboard of the carriage.

Reduction was easily effected. The patient, lying on his back, was placed on a mattress on the floor. He was then fully anæsthetized. Bigelow's directions for the reduction of this dislocation were then followed out exactly. Mr. Godlee, the house surgeon, standing on the left side of the patient, first flexed the limb to a right angle with the body. He then placed his foot upon the pelvis to steady it, and made moderately forcible traction from the flexed knee. The bone went in at once with a loud snap. The whole operation did not last a minute. The force used was by no means great. The limb was then put on a long splint, and the patient put to bed.

This form of dislocation is the one which Bigelow would call "dorsal below the tendon." Speaking of it, he says: "The bone first escapes below the socket, or on its thyroid aspect, the limb being flexed. The limb being subsequently extended, the head slips upwards, not only behind the acetabulum, but also behind the capsule and the internal obturator muscle." The head of the bone is first *below*, and subsequently behind, the tendon of the obturator internus. Hence Bigelow's name for the dislocation. In this situation of the head of the bone, the fibres of the internal obturator lie obliquely in front of it, *a tendinous wall interposed between it and the acetabulum, which no extension or rotation short of its rupture can displace or overcome*; but "when the thigh is raised perpendicularly to the floor (the patient lying on his back on the floor), the head of the bone is unlocked, and lies *below* the socket, and needs only to be jerked upwards into its place, or the suspended pelvis may be depressed."

In Bigelow's excellent work on the Hip

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* Photographic Review of Medicine and Surgery. Edited by F. F. Maury, M.D., and L. A. Duhring, M.D. Philadelphia.

will be found some first-rate wood-cuts, which will effectually clear up any ambiguity there may be in the above description.—*Lancet*, January 6.

COMPLIMENT TO DR. H. J. BIGELOW.—Mr. Jonathan Hutchinson, Senior Surgeon to the London Hospital, in a lecture on *Dislocation of the Hip-joint (British Medical Journal*, Dec. 23d, 1871), pays the following well-merited compliment to our countryman, Dr. Bigelow :—

"Next, gentlemen, let me say that I regard the researches of Dr. Bigelow in respect to our subject as amongst the most valuable of recent additions to the science of surgery. His essay on the *Mechanism of Dislocation and Fracture of the Hip* I recommend to you most strongly as an excellent example of experimental investigation applied to a subject concerning which but too many had been contented to guess and speculate. I will endeavor to state to you briefly some of the chief results of the Boston professor's work—for details, of course, I must refer you to his work."—*Medical News and Library.*

URETHRAL RHEUMATISM.—Mr. Thos. Bond read a paper on the so-called urethral rheumatism. He does not regard it as the effect of any specific poison or constitutional diathesis ; and it often occurred quite independently of gonorrhœa, as well as of very gouty or rheumatic predisposition. It was dependent on a local condition of the urethra ; and he called it urethral rheumatism, as being the most convenient name. It occurred in men of an anæmic or weakly condition, or when gonorrhœa had been treated too long by copaiba or purgatives. There was a subacute inflammation of the synovial membranes and of the fibrous tissues about the ankles, heels, and balls of the great toes ; it gradually affected the shoulders, elbows, and hands. Congestion of the sclerotic was present ; and the health suffered severely. Exacerbation took place, with pains in the loins in the morning, followed by profuse perspiration, with loss of appetite and sleep. The urine was scanty, the tongue coated, the face hectic. The limbs often became permanently contracted, unless great skill and care were used in the treatment. The urethral discharge varied from profuse muco-purulent discharge to the slightest gleety fluid. The disease was not diathetic, but septæmic ; in fact, a chronic pyæmia. He believed the altered state of the blood was kept up by the daily absorption of the morbid material from the urethra. As soon as the supply of the *materies morbi* from the absorption was stopped, the blood gradually eliminated the poison and returned to its healthy state. The peculiar immunity of women was owing to the greater thickness and coarseness of the vaginal epithelium than that of the male urethra, and to their not being treated by specifics and antiphlogistics. If the disease were a rheumatic urethritis, and not an urethral rheumatism, why should not women be equally liable with men? Antiphlogistics, copaiba, and iodide of potassium did no good, but rather harm. The proper treatment was full diet, with steel and quinine, wine and porter, and lastly injection, until the discharge was completely cured. A very good injection was tannin and opium with water.—*Transactions of the Medical Society of London.*

CONCEPTION UNDER UNUSUAL CIRCUMSTANCES.—Dr. Olshausen narrates two cases of conception, in which the women wore intra-uterine pessaries at the time. In one case the menses ceased suddenly, while in the other they continued regularly for six months during which the pessary was worn. The possible dates of cohabitation were precisely given. About twenty days after this, the author removed the instrument. After barely two hundred and fifty-three days, occurred the birth of a very vigorous boy, judging from whose development the entire period of gestation (in this case two hundred and eighty days) must be allowed. The woman had also, during the first months of pregnancy, while the pessary still remained, nausea and vomiting, and therefore regarded herself as pregnant. In the other case, two hundred and forty-nine days after removal of the pessary, followed the birth of a very vigorous girl, which was much too well developed for such a short period of gestation. Dr. Olshausen believes, nevertheless, that continuity of the sexual canal, as a rule, is an absolute condition for conception, but asks, How could conception occur under such exceptional conditions? The hypothesis of Dr. Kristeller may be quoted in reply. This observer has for a long time turned his attention to the slimy mucus produced by the glands of the uterine mucous membrane, especially those of the cervix, and describes minutely its production, conditions of existence, and nature. In the normal sexual conditions, it hangs from one to six centimetres from the orifice of the uterus, clear, tough, and sticky. The author therefore rejects the contact of the os uteri and penis during sexual intercourse from physico-mechanical grounds, and asserts that the ejaculated sperm collects somewhat in a mass, in a species of recess of the vagina, behind the perineal groove. In this vessel of sperm the already produced or freshly generated stringy mucus bathes, and carries the spermatozoa into the uterus. In fact, Dr. Kristeller, several hours after coitus, found the stringy mucus permeated far up with living spermatozoa. He therefore concludes that conception is effected by means of the string of mucus, and presents as further proof a series of clinical observations.—*Arch. für Gynækol.*

The Physiological Action of Conium.—By Verigo.—The author sums up the results of his experiments in regard to this agent in the following conclusions :—

1. Conium acts especially and most powerfully on the spinal cord, while it chiefly affects the nerves of motion.

2. This action is shown in frogs by symptoms of paralysis without any signs of cramp, independently of the size of the dose; in mammalia, however, after large (fatal) doses there is almost constantly severe cramp, but after small doses, which are not fatal, there appears only the paralysis in the extremities.

3. The paralysis advanced from the cord toward the periphery of the sensory nerves (?), which is affected later.

4. The brain is to all appearances little affected by conium.

5. The sensory nerves are not at all affected by it.

6. In small doses, conium diminishes the respiration ; in large doses, it may entirely abolish it, which does not depend upon the affection of the peripheral nerves, as Kölliker thinks, but upon paralysis of the cord.

7. Among mammalia the appearance of cramps is an almost sure sign that death is imminent; they are a symptom of poisoning, and do not depend upon the cessation of respiration.

8. The blood seemingly undergoes no change, at least the corpuscles do not lose their ability to absorb oxygen.

9. Conium does not affect the heart and pulse.

10. It diminishes the temperature of the body, and the more considerably as the paralysis advances. Its influence over the pupil is not constant.

11. Conium has a more powerful and more rapid action when injected into a vein, weaker when taken by mouth or under the skin. In both the latter methods its action is equal.

12. It has no influence on the quantity or composition of the urine.

13. Applied externally, it produces only a slight itching.

14. After poisoning with conium, no constant characteristic appearances are found.—*All. Med. Cent. Zeitung.*

Ratio of Height to Weight of the Human Body.—From a number of careful observations made in recent years by Dr. Lankester with regard to the statistics of the human frame, an attempt has been made to determine, approximately, the average ratio in perfect health between a given height of the body and its weight. As the result of these observations, it is laid down that for a height of five feet the normal weight is one hundred and fifteen pounds, and that an additional inch in height should be accompanied by an increase of about five pounds in weight. According to this rule, the weight of a person five and a half feet in height should be one hundred and forty-five pounds, and a person six feet in height should weigh one hundred and seventy-five pounds. Any variation in weight from the ratio given depends, as a general rule, on excess or deficiency of the adipose tissue, which, in a healthy human body weighing one hundred and fifty-four pounds, and five feet eight inches in height, should amount to twelve pounds.—*Australian Medical Gazette.*

Homer on Physic.—Doctress Thetis.—Anæsthesia has been traced as far back as the exsection of the rib in the garden ; and now comes a writer in the *N. Y. Medical Journal* claiming for Homer a knowledge of the art of embalming. When Patrocles, the friend of Achilles, was slain, according to the Iliad, the body was washed and anointed with ointment nine years old, and laid on a bed and covered with fine linen from head to foot; and over all was spread a white mantle. The next day Thetis came and made a *post-mortem* injection into the body in order to preserve it, "and then she instilled into it through the nostrils ambrosia and ruby nectar, that his body might be uncorrupted." Thetis would appear to have been the first female physician.—*Pacific Med. and Surg. Journal.*

Medical Miscellany.

Censors of the Suffolk District Medical Society.—The attention of physicians desiring to enter the Massachusetts Medical Society is called to the advertisement of the Censors in our advertising columns.

Massachusetts General Hospital. Appointment of House Students for 1872–73.—At a recent meeting of the Trustees of this Institution, Messrs. Frederic C. Shattuck and William H. Workman were appointed house officers in the medical department, and George K. Sabine, James B. Ayer, Frank E. Porter and E. H. Bradford, in the surgical department.

Dr. John Rose Cormack, the correspondent of the *British Medical Journal* during the Franco-Prussian War, and formerly its editor, is about to receive the honor of Knighthood for his devotion to the cause of the wounded during the sieges. His services have already secured for him the thanks of the French and English Governments, and the Cross of the Legion of Honor.

Chicago Journals.—The *Chicago Medical Examiner* comes to us in a new form. It will, in future, be issued on the 1st and 15th of each month, in royal octavo, and will, as before, contain communications of general professional interest.

The *Chicago Medical Journal* has made its appearance for the first time since the great fire, the October, November and December numbers coming out together.

Braithwaite.—Those of our subscribers who live in Massachusetts will, within a few days, receive their copies of *Braithwaite's Retrospect of Medicine and Surgery* for January, 1872. It is, as usual, filled with good material, and will come as a welcome visitor to the table of many a practitioner.

The *Medical and Surgical Reporter* mentions the death by confluent smallpox of a lady who had an attack of the same disease fifteen years ago.

The Reparative Efforts of Nature after Gastrotomy.—The *Union Medical* exhumes from a medical periodical of 1761, an account of an autopsy made on the body of a famous glutton, a tripe seller, on whom it had been necessary, twenty years before, to practise gastrotomy and remove eight inches of the cæcum and colon, which were gangrened. When on the autopsy the intestine had been tied and inflated, it was discovered that Nature, so fertile and admirable in its methods, had substituted for the intestine which had been cut away, a prolongation of the peritoneum, and that structure served instead of an intestinal canal.—*Med. Press and Circular.*

Artificial Milk Used in Paris during its Siege.—When natural milk became scarce in Paris, Dubrunfaut proposed an artificial milk made by dissolving 1½ ounces of sugar in a quart of water, adding an ounce of dry albumen (from white of egg) and 15 to 30 grains of soda crystals, and then emulsionizing therein from 1½ to 2 ounces of olive-oil. As the war progressed, gelatin was substituted for the albumen, and then slaughter-house fats—purified by melting at 150° and then projecting into them small quantities of water—for the olive-oil. One firm made in this latter way 123,000 gallons of milk daily for Paris consumption.—*The College Courant.*

The number of patients admitted into the New York State Inebriate Asylum during the last year, was 244; whole number treated, 315; number at end of year, 85.

To Correspondents.—Communications accepted:—Is Phthisis Contagious?

Books Received.—Electricity in its Relations to Practical Medicine. By Dr. Moritz Meyer. Second Revised and Corrected American Edition. By Wm. A. Hammond, M.D., Professor of Diseases of the Mind and Nervous System in Bellevue Hospital Medical College. New York: D. Appleton & Co. 1872. Pp. 506. (From James Campbell.)

Pamphlets Received.—Fifth Annual Report of the Board of Trustees and Officers of the Minnesota Hospital for the Insane, for the year ending Nov. 30, 1871. Pp. 48.—Annual Report of the Superintendent and Physician of the New York State Inebriate Asylum, Binghamton, N. Y., for the Year 1871. Pp. 46.

Deaths in sixteen Cities and Towns of Massachusetts for the week ending Feb. 3, 1872.

Cities and Towns.	*No. of Deaths.*
Boston	121
Charlestown	17
Worcester	22
Lowell	17
Milford	3
Cambridge	17
Salem	10
Springfield	9
Lynn	12
Gloucester	4
Fitchburg	7
Taunton	3
Newburyport	9
Somerville	8
Fall River	8
Haverhill	6
	273

Prevalent Diseases.	
Consumption	49
Pneumonia	28
Scarlet fever	22
Croup and Diphtheria	12

There were four deaths from smallpox: three in Boston and one in Springfield. Of the deaths from scarlet fever, seven were in Worcester and six in Boston.

George Derby, M.D.,
Secretary of State Board of Health.

Deaths in Boston for the week ending Saturday, Feb. 3d, 121. Males, 58; females, 63. Accident, 5—abscess, 1—apoplexy, 3—aneurism, 1—anæmia, 1—bronchitis, 4—inflammation of the brain, 1—congestion of the brain, 1—disease of the brain, 5—cyanosis, 2—cancer, 2—burned, 1—consumption, 25—convulsions, 1—croup, 2—debility, 1—dropsy, 1—dropsy of the brain, 4—diphtheria, 2—scarlet fever, 6—typhoid fever, 3—gangrene, 1—gastritis, 1—disease of heart, 7—intussusception, 1—disease of the kidneys, 4—congestion of the lungs, 1—inflammation of the lungs, 8—marasmus, 2—old age, 3—paralysis, 1—peritonitis, 2—puerperal disease, 1—purpura hæmorrhagica, 1—rheumatism, 1—smallpox, 3—disease of spine, 2—suicide, 1—whooping cough, 1—unknown, 4.

Under 5 years of age, 40—between 5 and 20 years, 7—between 20 and 40 years, 34—between 40 and 60 years, 27—above 60 years 13. Born in the United States, 81—Ireland, 27—other places, 13.

THE
BOSTON MEDICAL AND SURGICAL JOURNAL.

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Original Communications.

THE USE OF THE OPHTHALMOSCOPE IN THE DIAGNOSIS OF BRIGHT'S DISEASE OF THE KIDNEYS.

From the Records of the Boston Society for Medical Observation, W. L. RICHARDSON, M.D., Secretary.

AT the meeting held March 20, 1871, the question having been asked as to the use of the ophthalmoscope in the diagnosis of Bright's Disease of the Kidneys, Dr. Williams said that as yet it was undetermined at how early a stage of the disease the ophthalmoscope was of use as an aid to diagnosis. In certain cases, it had been used at a very early stage, and characteristic appearances were detected at the fundus. The prognosis was always unfavorable in cases of Bright's disease accompanied by changes in the retina; although cases were on record in which, though the retina showed the white patches peculiar to this disease, recovery had yet taken place.

Dr. Wadsworth said that the retinitis which sometimes occurs in diabetes mellitus may present appearances identical with those in Bright's disease.

Dr. Hay alluded to a case in which Graefe had made out the diagnosis of Bright's disease from having seen with the ophthalmoscope those appearances of the retina which were supposed to be typical of Bright's disease, and yet, after death, the kidneys were found to be perfectly healthy, the appearances seen in the retina having been caused by a tumor of the brain.

June 19th, 1871.—Dr. Williams said that at a recent meeting of the Society the question was asked whether it was possible to distinguish, with certainty, the ophthalmoscopic appearances observed in connection with Bright's disease from other morbid changes seen in the fundus of the eye.

In answer to this question, he would read two cases selected from an unusually large number which had come under his observation within the last six months, where the subsequent course of the disease and death of the patients had afforded unmistakable confirmation of the diagnosis made by means of the ophthalmoscope at a time when no suspicion of kidney disease had been entertained.

CASE I.—Mr. —— consulted him Dec. 13th, 1870, complaining of much dimness of sight. Examination with the ophthalmoscope showed dilatation of the retinal veins, marked yellowish-white exudation around the optic disc, indistinctness of outline of the disc itself, small, flame-like hæmorrhagic patches here and there in the vicinity of the optic nerve and the macula lutea, and a group of brilliant white spots clustered about the macula lutea.

On inquiry, the patient said that he had suffered for some time from severe headaches, which he had attributed to gastric disturbance, but which were ascribed, by an irregular practitioner whom he had seen, to his liver. No disease of the kidney had been suspected, and the gentleman was incredulous as to the correctness of Dr. Williams's opinion when it was expressed to him. But on testing the urine by heat and nitric acid abundance of albumen was found. He was enjoined to give up the more active portion of his business, which prevented his taking proper care of himself, and to be regular in his hours for meals. Mild tonics were given.

No unfavorable prognosis was given to the patient, but his family were informed as to the probable termination of the disease.

Under the plan of treatment recommended, the patient improved in health, and on his last visit to Dr. Williams, near the end of January, he was free from pains in the head, and was very cheerful and hopeful. But his face had a puffy look, and Dr. Williams could not feel the same confidence that all was going on well with him. No examination was made at this time, as he came in haste, merely, as he said, to report progress.

He left the city soon after, hoping for benefit from change of air; but a few days afterwards he broke down, almost at once, new cerebral symptoms came on, and a fatal result soon ensued.

At the autopsy, as reported by his attending physician, the kidneys exhibited very extensive fatty degeneration, with several cysts.

CASE II.—Mr. ——, æt. 27, consulted Dr. Williams May 3d, 1871.

Twelve weeks previously, he had severe pains in forehead, and noticed dimness of sight. This dimness increased till, now, he can count fingers only at six inches from his eyes. His face was pale and œdematous. Has had pain in right lumbar region, and also in left side, attributed by his physician to an enlarged spleen. His urine has considerable cloudy deposits after standing, and coagulated on being heated.

The ophthalmoscope showed very extensive exudations in the vicinity of the optic discs, and hæmorrhagic spots were extensively scattered over the retinæ.

The prognosis given to his father, who accompanied him, was most unfavorable as regarded his sight and his life, and the patient returned home.

May 15th.—His father wrote, "He bore the journey home remarkably well, and for the two succeeding days (6th and 7th) appeared as well as when you saw him, except a swelling in one foot and leg, the inflammation extending nearly to the knee. He was perhaps slightly prostrated by the fatigues of the journey. Saturday night he had but little rest, and got up on Sunday morning with the appearance of having a very severe cold in his head and chest, the cords of his neck inflamed and painful. He soon had a chill. Most of the day he was in a kind of lethargic sleep. Monday, he was more comfortable, the soreness having left his throat, but cords of his neck still painful. Tuesday morning, he was much prostrated, and could not walk without support.

"Up to this time he had confidently expected to recover, notwithstanding the little encouragement you gave him.

"About this time the swelling in his neck and chest increased considerably, he constantly growing weaker. He was very thirsty. Wednesday, between 2 and 3, P.M., he became partially deranged, talking almost continually, but could be called back to consciousness for a moment by speaking to him. This continued till about 9, P.M., when his consciousness fully returned—he bade good-bye to his friends, and quietly breathed his last."

THE CLIMATE OF COLORADO.

By W. F. McCLELLAND, M.D., Denver, Col.

CONSIDERABLE difference has always existed among medical men as to what altitude, other things being equal, was most favorable for the restoration of chronic invalids to health; this, undoubtedly, depends much upon the character of the disease, the state of the disease being improved, or the contrary, by the relative altitude above the sea. In this connection, the question has been asked if Colorado should be recommended for persons suffering from asthma and similar diseases.

The physiological effects of a residence at a great altitude are to increase the frequency of the respiration and accelerate the pulse. Such results might be in some diseases disastrous, or even fatal; but not so with asthma, the increased activity required of the respiratory organs being a direct and constant benefit. The change, also, has the effect to assist digestion, and the result must be that the blood becomes more perfectly aërated and the system improved in tone. The question has been asked whether that peculiar form of asthma which makes its appearance about the 15th of August, called hay asthma, would be relieved by a residence in Colorado. I would say yes, above all others. This disease, as we are led to believe by recent investigations, is due to the presence in the air of spores, produced during the growth of certain flowers and grasses. A visit to the elevated portions of the Eastern States affords relief from the sufferings caused by this malady. We are certainly justified in recommending the climate of the Rocky Mountains, the backbone of the continent, where the purest air exists and a dry atmosphere, whose influence is shown to be beneficial in the treatment of this disease. The atmosphere of Colorado, even at the time of the greatest amount of rain-fall, is never damp. The evening air can be breathed with impunity, and even invalids can camp out on the plains without shelter, with no fears of physical harm.

The eminent English physician, Dr. Chambers, in his lectures on the renewal of life, gives the very sensible rule respecting choice of climate for consumptives, not to mind the average height of the thermometer or its variations; not to trouble one's self about the mean rain-fall, or to be scientific at all, but to find out by some one's journal how many days in the year are fine enough to go out in the forenoon and afternoon, and how many nights one can sleep well as far as the temperature is concerned: these are the tests we require. If we judge from all these data, Colorado is one of the most favored spots on the face of the globe for asthma, consumption and other chronic diseases, or for patients needing relief from excessive work, either of body or mind. The variety of altitude in Colorado affords great facility for choice of temperature and density of atmosphere; a ride of two hours over the plains, and six hours of mountain travel by carriage, over roads pronounced the best of the kind in the world, and through the grandest of scenery, carries one from the summer-heat of the valley through intermediate grades of climate to an altitude where an overcoat is a comfort by day and a blazing fire a necessity by night. Good inns are found on all the roads, and towns and villages having the refinements as well as the comforts of life are situated upon the mountains, ten thousand feet above the level of the sea. Under such tonic influences, invalids from abroad rarely fail to improve rapidly. Asthma, in its most aggravated and long-seated forms, is relieved in so nearly every instance by a residence here that the exceptions are not to be taken into account; and almost perfect immunity from it is enjoyed by every case remaining in the dry, salubrious atmosphere and almost constant sunshine of Colorado. Consumptives who come here before the ravages of the disease have made too great advances, almost certainly recover; while others, who could elsewhere only exist in constant suffering and helplessness, are here enabled to pass the remainder of their days in comparative comfort, frequently gaining a considerable degree of vigor. Dyspeptics also recover their lost powers of assimilation, and by proper care become robust. Those afflicted with bronchitis and affections of the throat, many of whom have tried other localities and even sea-voyages in vain, become sound and well by a sojourn in Colorado.

Death of Sir James Murray, Bart., M.D.—The death is announced of this veteran of our profession at the ripe old age of eighty-three. He has been for many years Inspector of Anatomy for Ireland, and physician to the Lord-Lieutenant. He was born in 1788, was educated at Edinburgh and at Trinity College, Dublin, and received the honor of knighthood in 1863. —*Dublin Med. Press and Circular.*

Reports of Medical Societies.

SELECTIONS FROM THE RECORDS OF THE OBSTETRICAL SOCIETY OF BOSTON.

SECRETARY, J. B. TREADWELL, M.D.

May 13, 1871.—Dr. Buckingham, the President, in the Chair.

Absence of Vagina.—Dr. Curtis reported the case.

March 22d, saw, for the first time, Lizzie D., 16 years old, a tall, slender, unhealthy-looking girl, with pallid face and thin body. She had complained for seven months of abdominal pain and distention, especially marked at each probable menstrual period, though the catamenia had never appeared.

On examination, the abdomen was found somewhat prominent, with an ill-defined, movable, elastic, rounded mass, rising from the pelvis and distending the abdomen to the navel, especially on the right side. The external genitals were covered with a remarkably abundant growth of dark hair, and were not in the least distended. There was a mere trace of a vaginal opening in the shape of two small cul de sacs or folds below the meatus, one below and somewhat to the left of the other. The bladder was high up and forwards. Per rectum, the pelvis was felt to be filled with a large firm mass, continuous with that in the abdomen, rounded and hard, of the size of a child's head. No uterine neck could be felt. A sound in the urethra and a finger in the rectum were separated in front of the tumor by a thin wall of tissue.

Eleven days afterward, having been in the Massachusetts General Hospital some days, the following operation was performed by Dr. Hodges: An incision was made in the median line about the centre of the vulva. As no trace of a vagina appeared, a careful dissection was made between the bladder and rectum, to the depth of an inch, with scissors. The dissection had now reached a point one inch from the tumor. A large trocar was next introduced, from which immediately flowed a thick, chocolate-colored fluid. The opening was enlarged by a dilator, the fluid welling out in a flood. No efforts were made to expel the retained fluid. No pressure was allowed on the abdomen, the contents of the uterus exuding by the natural contraction of the parts, during four or five days. No injections into the cavity were practised.

During the next fourteen days, the patient had more or less abdominal tenderness and pain, requiring opiates; and on the four days preceding death, frequent chills with consequent sweating.

No *post-mortem* examination was allowed.

Peritonitis following protracted Labor and the Use of Forceps.—Dr. Ayer reported the case.

Primipara, anæmic; twenty-six hours in labor. The forceps was easily applied, and the patient delivered in forty-five minutes, traction being employed during the expulsive efforts of the uterus. There was no abdominal tenderness the next day. On the second day, the pulse was 100, and there were febrile symptoms and tenderness over the inferior, anterior portion of the abdomen. The tenderness extended in area, and the whole abdomen became tympanitic. This condition continued for two or three days. Urination normal. Opium, alkalies and turpentine were administered internally and externally. On the sixth day, for the first time, there was slight lochial discharge. On the eighth day, the patient was better, and recovered rapidly. There was no erysipelatous patient under Dr. Ayer's care at the time. He considered the case as one of local peritonitis, caused by the use of forceps.

Dr. Abbot questioned whether the forceps had anything to do with the attack, which in his opinion was metritis, and due rather to the lingering character of the labor, and might have been averted had the instruments been employed earlier.

Dr. Read believed that most *post-partum* troubles are due to delaying too long the use of forceps.

Dr. Ayer remarked that he had noticed that anæmic women are more likely to become the subjects of peritonitis than others.

Dr. Abbot asked if the urine was examined in the case reported.

Dr. Ayer replied that it was not.

Dr. Buckingham said that he could not see how forceps had anything to do with the production of the unfavorable symptoms.

Dr. Reynolds asked if any gentleman present had ever seen serious injury to the head from the proper application of forceps? He knew of only one instance of such injury, and in that he believed the forceps had been misapplied; the frontal bone was fractured. Presentation antero-posterior, with occiput to the sacrum, the occiput having been slightly to the right at an earlier period; the forceps was applied exactly over the ears: the head should have been rotated before traction was made.

Dr. Read said it was his opinion that the head could not be rotated after it was once well down in the pelvis.

In answer to the question as to injury to the head from forceps—

Dr. Cotting said he had never seen an instance of anything more than superficial injury.

Dr. Abbot remarked that in some cases it is difficult to say whether the forceps kills the child or not; in such cases it is certain the child could not be born living without it, and the question is therefore unimportant.

Drs. Wellington, Curtis, Sinclair and Ayer said they had never seen any instance of injury to the head.

Dr. Buckingham said that he did not know by observation of an instance in which the child had been destroyed by forceps. He had seen all sizes of heads, and all presentations and positions in which delivery was performed, both with and without forceps. Children died as often when delivered with forceps as without. The compression of the forceps would not kill, unless the head was so large, or the pelvis so small, that the child could not be delivered alive in any way.

Dr. Ayer said the only ill effects he had ever seen was a wound upon a cheek which became gangrenous.

Morbid Condition of Umbilical Cord.—Dr. Read mentioned the following case of labor which he had recently seen:—

The woman was stout; the pains short and ineffective; delivery was effected by forceps; the cord was filled with dark, grumous blood, like diluted meconium. Respiration about once per minute for the first hour, but gradually improved; the child is now doing well.

Contagiousness of Erysipelas in the case of Lying-in Women.—Dr. Cotting referred to the case of a pregnant woman, reported at a former meeting of the Society, who had been subjected to the contagion of erysipelas, and said that she had since been confined, and made a good recovery, without any untoward symptoms.

Dr. Cotting also reported the following cases, in which the patients had been the subjects of or subjected to the influence of erysipelas.

April 13th, 1871, a lady was confined; ninth labor. She had been ill most of the time throughout her pregnancy with nausea, &c., and had been confined to her chamber part of the time. Her cook had erysipelas, and was carried away from her house just previous to her confinement.

She entered the patient's chamber frequently just before and also three days after confinement. The puerperal woman did well.

April 18th, 1871, was called to a woman in labor, whose nursery maid was still sick, though convalescent, with erysipelas, and was frequently in the same room with the lying-in patient. There were no unfavorable symptoms.

April 22d, 1871. A lady had phlegmonous erysipelas which commenced in the region of the vulva, passed between the nates to the left buttock, and covered her back as far as to the lower edges of the scapulæ. She was confined during the course of the disease. The labor was normal. There were no abdominal symptoms. A very large abscess on the back was opened by two incisions, eight and ten inches in length, parallel to the spine, from which there was a copious discharge of sloughy pus.

None of these patients were seen by Dr. Cotting until labor occurred, and of course the erysipelas could not have been caused by any contagion conveyed by him.

May 9th, 1871, Dr. Cotting attended another case of labor in the same street as the third case mentioned above; the patient did well.

So far as the evidence derived from these cases went, it was against the theory of contagion.

Effect of rapid removal of Placenta and Coagula.—Dr. Reynolds spoke in regard to the rapid emptying of the uterus of the placenta and coagula in forceps cases. The older writers advised against too rapid removal, but he thought the uterus contracted more promptly when delivery of the placenta was rapidly effected. Dr. R. asked the gentlemen present whether, in their opinion, such rapid removal would have a greater tendency to cause the uterus to fill with blood than when it was allowed to remain longer.

Dr. Minot said he had never seen any trouble from speedy removal.

Dr. Ayer said that he was satisfied that the sooner the placenta was removed the better.

Dr. Sinclair agreed with these gentlemen in the main, but thought there were exceptional cases in which flowing followed the removal of the placenta.

Dr. Read said that the first case of midwifery he attended—a primipara—he waited long and patiently, according to instructions, for the placenta to come away, but finally he had to remove it; since then he had removed it as soon as possible; he had never had a case of post-partum hæmorrhage. He thought the uterus contracted without any manifestation of pain in most cases.

Dr. Abbot said he removed the placenta immediately after attending to the child.

Dr. Reynolds said he referred, in his question, to non-contractile uterus, with large clots; in such cases he employed external pressure.

Dr. Cotting said he removed the contents of the uterus as soon as convenient.

Dr. Read said he thought we are often unnecessarily anxious about a relaxed uterus; the uterus could often be felt small and hard, and shortly would be found dilated with clots, which would subsequently come away without further trouble of any kind.

Dr. Buckingham said that this condition —mentioned by Dr. Read—need give no alarm unless the pulse exceeds 80 and pain, in the back is complained of; when these symptoms are present clots will probably be found in the vagina.

Dr. Read asked if in such cases pressure and manipulation would cause the uterus to contract.

Dr. Buckingham said he thought not. He was in the habit of passing his hand into the uterus and scooping out the contents; he thought this a better procedure than trying to press them out. He thought, also, that irritation of the neck from clots in the vagina might produce irregular contractions.

Dr. Reynolds remarked that it had been said that in intra-vaginal hæmorrhage the clot causes violent expulsive contractions of the uterus.

Dr. Buckingham said that although the hæmorrhage might not be very copious, the uterus is forced upwards and finally expands.

Hæmatemesis of the Child after Delivery by Forceps.—Dr. Minot asked if any gentleman had ever seen vomiting of blood in the child after delivery with forceps; he had seen one such case, and Dr. West mentioned the symptom. He had seen no explanation of it.

Chloral in Cod-liver Oil is said to render it much less nauseous, and prevents the night-sweats of the phthisical patient, induces sleep, and creates appetite. The pure chloral-hydrate crystals may be added to cod-liver oil in the proportion of 10 grains of the former to 190 of the latter.

Selected Papers.

ON THE FORMATION OF SO-CALLED VITREOUS BODIES (COLLOID) OF THE HUMAN CHOROID AND THE CAUSE OF THE HYALINE DEGENERATION OF THE VESSELS.

By Dr. ALEXANDER RUDNEW, Docent in Ophthalmology at the University at Warschau. Virchow's Archiv, Vol. 53, 1871.
Translated for the Journal by B. JOY JEFFRIES, A.M., M.D., Boston.

OPHTHALMOLOGISTS are familiar with the vitreous bodies frequently seen on the inner surface of the human choroid. They are readily recognized on examining different choroids under the microscope. Donders and H. Müller have carefully studied and accurately described them. Donders in Graefe's Archiv, 1855, under the title "Die Metamorphose der Pigmentschicht der Choroidea." Müller's article is in the same Archiv, 1856, under the title "Untersuchungen über die Glashäute des Auges insbesondere die Glaslamelle der Choroidea und ihre senilen Veränderungen." In Wedl's Handbook, and also in his Histological Atlas, these bodies are described and figured. Since Donders and H. Müller's special studies, cases have been reported in ophthalmic literature by Heymann, Donders, H. Müller, Junge, Schweigger, Pagenstecher, Schiess-Gemaseus and Rudnew. (The translator would refer to the original for references).

Donders and H. Müller attributed to these bodies at least a mechanical action on the retina, and an interference with the latter's physiological function. I therefore determined to ascertain in every eye that came into my hands the presence or not of these bodies on the choroid. By the examination of a large number of eyes, I became acquainted with all Donder's and Müller's described processes. The more I examined, under the microscope, the choroids containing these bodies, the oftener I met with such appearances as did not tally with the former views as to the cause of this morbid process, and I was induced to explain their development in quite a different way. I pursued, therefore, a special study of these vitreous bodies, and the following is the result of my examination, which I submit for general judgment. (The method of preparing the specimens is omitted by the translator.)

Examining now a portion of the choroid where the vitreous bodies are of some size, under the microscope with × 300, and we shall have the following picture (figured in the original). The whole surface turned towards us is an unbroken net of capillary vessels, generally more or less filled with white and red blood-corpuscles. The blood injection of the vessels varies greatly in some cases. When the injection is excessive, it may be attributed to the choroidal hyperæmia present during life, as was remarked by H. Müller among others. The varicose distension of the capillaries is often very visible. This capillary injection renders the subdivision of the vessels quite distinct. The vessel's walls are generally seen when there is no injection. Beneath the capillary net is seen a greater or less amount of the stroma of the choroid, with stellate pigmented cells and vessels, which do not correspond to the veins or the arteries, nor in size to the capillary net. They are rather vessels passing from the capillaries to the veins. The elastic membrane lying in the preparation under the capillaries will be scarcely noticed, since it is perfectly transparent and extremely thin. Hence we can see through this elastic membrane the vitreous bodies. Examining these in different directions, we may be convinced that they project above the capillary layer, and have in general a globular shape. Their free upper surface is perfectly smooth and glistening, their edges are often sharply defined from their surroundings. The substance of these bodies is perfectly homogeneous, yellowish but transparent, allowing the vessels lying beneath them to be seen shining through. Occasionally, from irregular pressure of the covering glass, depressions are seen on their surface. At last they yield to strong pressure, the depressions become cracks, and the whole body breaks up into separate pieces. Chemically, these bodies show great durability. Water maceration does not alter them perceptibly. Weak acids and weak solutions of alkalies do not act upon them. Strong acids and alkaline solutions render them somewhat paler and duller. In caustic alkalies with high temperature they readily swell up. Strong sulphuric acid renders them browner, and finally destroys them. Iodine colors them yellowish, and sulphuric acid added produces no further change. Alcohol and ether do not dissolve these glassy masses. Their chemical properties are thus so indefinite that Donders used the term *colloid* for them. H. Müller compared them with the substance of the vitreous membranes. Their substance must, of course, be regarded as an organic product, the result of some unknown change of the albuminous material. Chemical examination tells us so little of their nature that we omit this part of the question, and pass to that which we more especially undertook, namely, their histology.

As to the mutual relations of these vitreous bodies and their distribution on the surface mentioned, it is to be noticed that they are found separate, with intervening space, or in groups, the individual bodies sometimes joining into a common mass. We saw now and then two joined in biscuit shape, as though formed by the fusion of two equal globes, and sometimes on the edges of a body thus shaped were smaller attached globules.

After this general view of the larger bodies, we must turn to the smaller ones. These are marked by their shape, broader than thick, flattened. In profile we see that they project above the plane of the subjacent part. The outline of these masses is often quite indefinite, so that they appear like glistening spots, inducing H. Müller to call such formations "washed spots." Within these flat bodies are often seen roundish spaces of various sizes, probably filled with a peculiar material, reacting to light very differently from the rest of the mass. These spaces within the vitreous bodies often have the form of cell nuclei, and then the whole vitreous body would represent a cell. H. Müller remarked this, but did not explain it.

As to the position of these young vitreous bodies described, it is to be noticed that their point of attachment generally corresponds to the intervascular substance. But if their size exceeds the space of the intervascular substance, then a part laps over the adjacent vessel. As to other peculiarities, it is difficult to make out any differences between the larger and smaller vitreous bodies, and hence we must regard the latter as of the same vitreous formation only in an earlier period of development. We finally succeeded in finding in the vitreous bodies the accompanying substances described by Donders and H. Müller, in the shape of small round masses. They resembled fat globules, but chemically they acted as mineral deposits. They are generally within the vitreous body, in the younger ones grouped at the point of the above-mentioned nucleus formation. In respect to the distribution of the vitreous bodies, it should be added that in the cases we saw they were scattered throughout the whole choroid from optic nerve to ora serrata. In general more thickly strewn at the equator of the eye.

As to the development of this process at different ages, Donders's and H. Müller's views are already known. According to them, they occur more frequently in the eyes of very old people. Müller reported those changes described almost entirely in subjects from 60 to 70 years of age. I can add but little new on this point to Donders's and Müller's observations, yet I must say that I found these bodies quite developed in people of middle age, and, on the other hand, much less so in those of 70 years. I found the vitreous bodies, with the mineral salts deposited in them, in the eyes of extremely aged subjects.

In deciding the development of these vitreous bodies, their relation to the surrounding tissues must be taken into consideration. The pigmented epithelium of the choroid cannot be excluded from taking part in their formation, but its alterations are passive, and only visible at the points where the colloid is extensive. I have figured a single body on whose summit no trace of pigmented cells was visible; there remained only a few pigmented nuclei of the broken-down cell. On the smaller vitreous bodies well-preserved cells are distinguishable. Hence we may conclude that these cells are destroyed simply by the pressure which the vitreous bodies exert on them, and that Donders's idea of the formation of these bodies from the nucleus of the pigmented cell is incorrect, so that their development has no connection with epithelial cells. On the other hand, let us examine these colloid bodies in reference to their connection with the tissue of the vascular layer of the choroid, and we may readily convince ourselves from transverse and flat sections that the connection of these bodies with this tissue is a very intimate one.

Whilst we can readily wipe away with a brush the epithelial cells from the upper surface of the colloid bodies, we cannot wipe off these latter from the tissue of the vascular layer. Whence this firm connection between colloid bodies and vascular layer? Müller would thus explain it. The colloid masses are products of the pigmented cells of the vascular layer and extrude from these cells into the free surface of the elastic membrane. Were this so then the younger ones would be easily wiped off, which is not the case. My examinations have, on the contrary, convinced me that the colloid bodies are never on the free surface of the elastic membrane, but, on the other hand, *under it.* Whence now and from what elements of the vascular layer do the colloid bodies come? Since the younger ones still retain the cell character, we must assume that they come from a regressive degeneration of some morphological element found in the vascular layer.

It is now known that in the vascular layer—in the normal condition in less numbers, in the inflammatory condition in groups—are found small round cells having all the characteristics of white blood-corpuscles. Since the recent discovery of the migration of white blood-corpuscles, no one will doubt but that we here have such an emigration, and that the colloid bodies of the choroid are just these emigrated white blood-corpuscles. The proof is, that in my preparations may be followed all the transition forms of the white corpuscles into colloid or vitreous bodies. In one I have figured, we see the newly emigrated, still unaltered white blood-corpuscle ; another, larger, losing its cell character, becomes more compact, glistening and more indifferent to the action of reagents. Later, the nucleus disappears, and then the cell character is lost ; in a word, the blood-corpuscle becomes a colloid body. When, during this process, several blood-corpuscles run together, we have those extended masses of colloid mentioned above. Often during this change a deposit of mineral salt occurs. Here and there the largest colloid masses push up the elastic membrane towards the centre of the globe, finally break through it and become free. We would once more recapitulate. 1st, that colloid bodies are emigrated white blood-corpuscles ; 2d, that they are formed by regressive metamorphosis of these latter ; 3d, that they may occur at any age, since the conditions for this emigration occur at every age ; 4th, that the more frequent appearance of colloid in old people is readily explainable by the fact that the stases in the vessels are much more common in them than in younger persons.

Let us pass now to the hyaline degeneration of the vessels. I saw this degeneration very marked in one case where there was purulent inflammation of the pia mater of the brain. This purulent process was also strongly developed in the choroid of the eye. In microscopic preparations I saw very extended vitrification of the walls of the vessels of the choroid. Some vessels were quite plugged by the glassy masses. This process has long been recognized. Junge and Pagenstecher found it in *retinitis pigmentosa*. Müller and Schweigger described the same with Bright's disease of the kidney. I have frequently seen this degeneration in cases where I found purulent inflammation of the choroid. Hyaline degeneration of the vessels was, as a rule, associated with greater development of colloid. The vitreous masses thickening the walls of the vessels, and even completely plugging their calibre, had the following peculiarities :—they were homogeneous, pretty transparent, strongly refractive and withstood the action of several reagents, as acids and caustic alkalies. They did not, however, exhibit the character of an amyloid, a fat corpuscle, or a mineral concrement. By more careful examination, we saw that the mass was not always wholly homogeneous, but here and there seemingly composed of separate bodies welded together, the points of union being designated to the eye by faint lines. Besides these glassy masses completely filling the lumen of the vessel, I noticed in several, completely isolated colloid bodies, by whose junction and aggregation these compact glassy masses were formed. From all this, I feel authorized in concluding that the alteration of the choroidal vessels is due to the same process as I have attributed the existence of the colloid bodies. That the vitreous masses we have described are not due to common thrombus or to embolus is proved by the fact that they possess none of the characteristics of the fibrinous plugs.

From all these examinations may then be deduced, that the white blood-corpuscles are not only the source of organized new formations, as pus or granular tissue, but serve also for the development of such pathological products as are placed by their cause in the category of regressive products.

ON THE THERAPEUTIC VALUE OF THE HYPODERMIC INJECTION OF ERGOTIN IN HÆMOPTYSIS.

By C. Currie Ritchie, M.D., Physician to the Hulme Dispensary, Manchester.

The use of ergot of rye in its aplication to the practice of medicine appears to be almost entirely limited by the great body of the profession to obstetric practice. In a suggestive paper published in the *Practitioner* for September 1868, Dr. Alfred Meadows advocates the extended use of this drug, which he had found extremely useful in various uterine and vesical affections ; and in the same spirit I venture to submit the following observations on a therapeutical aplication of ergot, hitherto but little known, with the hope that the experience of others may be elicited, and so an accurate knowledge of its real value be arrived at.

It seems to me that the restricted use of ergot is the direct result of the want of a full appreciation of its great physiological action; that is, of the power which it possesses of inducing contraction in muscular fibre of the involuntary or non-striped variety generally, and not merely in that of the uterus. Although having an important bearing on the general action of ergot, the following remarks apply especially to its action on the bloodvessels, of which unstriped muscular fibre is so important a histological element.

Experimental research has conclusively shown that ergot contracts the minute arteries, and by so doing increases the blood-pressure. A simple experiment will, as Dr. Meadows has shown, be sufficient to establish the former of these propositions: thus if a single grain of ergotin in solution be injected subcutaneously into the web of a frog's foot previously extended under a microscope, in a few minutes the circulation will be seen to become much quicker, then it will stop for a few seconds and oscillate in a spasmodic, jerking manner; after about half an hour, the blood-current will gradually return to its normal even, steady flow. The well-known experiments of Brown-Séquard afford additional evidence on this point. He found that in the dog the vessels of the pia mater contracted during its administration, just as with belladonna, but that ergot acted more powerfully on the cord than belladonna: both of these agents diminish the reflex power of the cord. The second proposition, that the blood-pressure is increased, receives interesting corroboration from the recent researches, chiefly with the hæmadynamometer, of Dr. Ch. L. Holmes, published in the *Archives de Physiologie*, No. 3 for 1870. He finds that "ergot contracts the minute vessels by an action on their muscular walls," and "that this contraction augments the blood-pressure in the large vessels;" it is, moreover, found that previous division of the vaso-motor nerves does not prevent the narrowing of the minute vessels, and that this diminution of calibre is also produced in the minute vessels of the lungs, causing a temporary diminution in the pressure of the systemic arteries. This last result has a direct bearing on the whole subject of pulmonary hæmorrhages; and as it seemed to Dr. Holmes to be incapable of a scientific explanation, he performed numerous experiments in order to test its accuracy. Thus, he surmised that the effect might be due simply to the sudden introduction into the interior of the heart of a foreign body, and accordingly he substituted other substances for the ergot which he had injected into the jugular vein of a dog; but whereas the injection of ergot was with great rapidity followed by sudden diminution of the blood-pressure, which remained depressed for several seconds and then reached a higher level than before the injection, no such results followed the injection of the other substances. This sudden primary descent of the pressure-curve occurred after ergot-injection, even when it was introduced at a distance from the heart, and when the cardiac nerves had been divided previous to the injection; so that Dr. Holmes is led to the conclusion that the occurrence is due to contraction of the pulmonary vessels, "impeding or even preventing the passage of blood into the left heart, and so diminishing the flow into the arteries and lowering their tension."

Such considerations as these lead us to hope that renewed and extended investigation by those who have the opportunity of inquiring into the therapeutical actions of the ergot of rye may assign this powerful agent its true place in our Materia Medica.

Ergot has long had the reputation of being a styptic; and as such has, in common with a multitude of others, been recommended in the treatment of hæmoptysis. Dr. Dobell (*British Medical Journal*, 1868, i. p. 630) quotes a case in Guy's Hospital under the care of the late Dr. Addison, which proved very intractable until ergot was administered. Dr. Dobell himself recommends it, but administers at the same time ergot, digitalis, gallic acid, and other preparations, which leaves us in doubt as to which of the drugs was the means of arresting the hæmorrhage. In a paper by Dr. Herman Weber (Clin. Soc. Trans. ii. 155), he remarks, "Another substance from which I have seen good effect in arresting severe hæmoptysis is ergot of rye in large doses, viz., from three to six drachms of the watery extract of our Pharmacopœia in twenty-four hours." I have not found the internal administration of ergot followed by the satisfactory results so frequently obtained from the use of gallic or sulphuric acids, acetate of lead, or sedatives; and in several cases it has produced such a disagreeable sensation of nausea that its use has had to be abandoned. In one case there was præcordial pain for half an hour after each dose.

An interesting paper published by Von Langenbeck in the *Berliner klinisch. Woch-*

enschrift, No. 12, 1869, p. 117, "On the Hypodermic Injection of Ergot in Aneurism," contains the first account I can find of its administration by this method. He argued that, as ergot induced contraction of the smooth muscular fibres, it would be a powerful agent in producing hæmostasis. Two cases of aneurism, one in the right supraclavicular fossa and the other of the right radial artery, were successfully treated by this means. Dr. Dutoit of Bern (Langenbeck's *Arch.* Bd. xii. No. 3) and others have successfully repeated this method of dealing with aneurisms. In some editorial remarks appended to the medical periscope of the *Edinburgh Medical Journal* for July, 1870, a case is quoted where a patient who had bled to thirty-six ounces from the lungs, within a few minutes, had his hæmorrhage completely checked in three minutes by the subcutaneous injection of five grains of ergotin; and Dr. Allan Jamieson records a case in the *British Medical Journal* for June 3, 1871, in which the same treatment was successfully adopted in a slighter case. The last case attracted my attention to this mode of treatment, and I have since adopted it in eight cases, with success; a solution of five grains of ergotin in ten minims of distilled water was employed, except in one case, in which unusual irritation was produced by it; I therefore substituted a solution (prepared according to Langenbeck's formula) of three grains of ergotin, in equal parts of glycerine and rectified spirit, which produced very little irritation.—*London Practitioner.*

Medical and Surgical Journal.

Boston: Thursday, February 15, 1872.

VACCINATION AND RE-VACCINATION.

As the subject of smallpox is attracting the attention of the public to a considerable extent, the prevention and treatment of the disease become proportionally of interest to the medical profession. We have already spoken of the subject at various times in the columns of the Journal; but in order to answer certain points which have recently been brought up and on which some medical men seem undecided, we have been asked to republish portions of the report made by Dr. J. C. White to the Boston Sanitary Association in 1861, and published by the Legislature in connection with papers by Drs. John and Robert Ware and D. W. Cheever. We regret that we cannot present these truly valuable papers anew to the profession; our want of space, however, forbids our giving more than brief extracts.

"*Inquiry into the necessity and efficacy of Re-vaccination, and as to when and how often it is necessary.*"—We approach this division of our subject with an extreme degree of hesitation, for on no other question of medicine has a greater diversity of opinion prevailed. Some maintain that the prophylactic power of vaccination is only temporary, gradually becoming feeble as the individual grows older, while others believe that its preservative virtue is unlimited in its nature, and absolute for the great majority of mankind. This latter class attributes the occurrence of variolous diseases after vaccination, to its improper performance. That such cases are of frequent occurrence, especially in epidemics, is admitted by all. Dr. Jenner lived to see them in persons he had vaccinated himself. * * *

It may be asked what is the criterion for a perfect re-vaccination; how do we know that the system has shown itself susceptible to the influence of smallpox? What do we mean by the operation being successful, imperfect or a failure? These questions may be best answered by quoting Dr. Gregory, who has determined the following laws from large experience in re-vaccination. He says: "1st. In many cases, especially if the interval from the primary to the secondary vaccination has not exceeded five years, the skin appears completely insensible to the vaccine matter. 2d. At intervals exceeding ten years the virus irritates locally. In three, or at farthest, four days from the insertion, an areola of irregular shape appears around a minute, itching, acuminated, and angry vesicle. A scab forms on the eighth day, which soon falls off, leaving no permanent cicatrix. 3d. In other cases a vesicle forms more gradually, without either local or constitutional irritation; a slight areola succeeds, and the vesicle yields on the seventh day a considerable quantity of thin lymph; but this lymph is incapable of propagating the disease. 4th. In this set of cases, the second vaccination runs a perfectly regular course. A circular areola forms on the eighth day, and the lymph propagates a genuine cow-pox." Successful cases, then, are those capable of standing the test of the fourth class, that is, those capable of propagating themselves. Of course, we find every shade of difference in individual cases, from the slight redness, showing that the system has felt the influence of the virus, and without which the experiment counts as nothing, up to the well-marked phenomena such as we witness upon an infant. This is the test used in the Prussian army, for there they always use lymph derived from vesicles of re-vaccination, instead of resorting to that taken from children or primary vesicles, as is the custom among us. Dr. Lohmeyer, in giving the results of re-vaccination in the Prussian army for 1840, says: "In the past year more frequently than in any other, the vaccination was performed by lymph taken from the genuine and regular vaccine pustules on adult persons; for past experience has consequently led military practitioners to be more strongly convinced that for the vaccination of adults, lymph taken from adults is to be preferred to that taken from children, and that it produces a more powerful reaction and more strongly developed pustules. And that the pustules thus produced do actually protect from the contagion of smallpox is proved by this, that in the fourth corps, in which the plan has been long followed, of vaccinating adults with lymph taked from good pustules in other adults, there has not occurred during three years a single variety of smallpox among those in whom the vaccine pustule ran its ordinary course, nor more than one case among those who were unsuccesfully re-vaccinated, although smallpox was constantly more or less rife in the neighborhood in which the corps were quartered." No bad results, moreover, have been seen to follow its use.

Still another question arises. How often, or at what age, shall re-vaccination be performed? The earlier in life we vaccinate for the first time the better; that it cannot be too early is proved by the fact that children are born into the world covered with the eruption of smallpox, and we have already shown how great a proportion of deaths from the disease occurs in infants. We have seen, too, that the body being once fully protected in childhood enjoys, in the majority of cases, immunity up to the age of 10 or 12. It would be advisable to repeat the operation before or by the 14th or 15th year, and again at the age of 25. After this, man seems to acquire more and more immunity by some natural process as he grows older, so that the operation need not be again repeated, except when the person is exposed in some extraordinary degree. Our object is, of course, to obtain, at every period of life, all the security which vaccination will afford. The opinions of hosts of authorities might be quoted in support of these views; but it is hoped enough facts have been adduced already to convince every one of their importance and truth. The following directions of Rösch, seem so very well put, and comprehend so completely the opinions of others, that we cannot forbear repeating them here.

1. To submit to vaccination all individuals who have not been vaccinated, even when they have had variola.

2. To repeat the vaccination ten or twelve years after the first vaccination.

3. If this re-vaccination does not prove successful, it will be necessary to repeat it from year to year, until complete success shall follow.

4. Should the re-vaccination prove entirely successful, the disposition to contract smallpox ought to be, for many years subsequently, excessively feeble; but notwithstanding this condition of the system, that is, an individual successfully re-vaccinated, a proper exercise of prudence would require after ten or twelve years a second re-vaccination.

We have thus endeavored to account for the occurrence of smallpox after vaccination, on the ground that its protective power is, to a certain extent, temporary, and have pointed out a remedy sufficient to secure every individual through life, viz.: re-vaccination.

* * * * *

We feel justified in offering the following conclusions as the results of our investigations:—

1. That the introduction of vaccination acted as an immediate check to the frightful ravages of smallpox in all parts of the world. That it destroyed the susceptibility to the disease in the individual as completely as inoculation or a previous attack of smallpox, without the danger or inconvenience which accompany the latter. That through its action epidemics of smallpox have become far less frequent than formerly, and their mortality has been reduced to a great extent. That its success has been greatest in those countries, where its universal employment has been made compulsory.

2. That the protective power of vaccination is absolutely the same to-day as it was in the time of Jenner.

3. That the immunity conferred by vaccination is not alike either in amount or duration in all persons. That the history of epidemics teaches that smallpox will attack

a definite proportion of the vaccinated, if exposed to its influence. That post-vaccine smallpox is very rare before the 10th year in children, and that it increases in frequency from the age of 12 to that of 25. That after the age of 35 the inherent predisposition to take smallpox seems to die out to a great extent both in the protected and unprotected.

4. That we possess in re-vaccination our only means of ascertaining the condition of individual security at any time, and of affording it when found wanting. That the large proportion of cases in which re-vaccination is found to be successful, its influence in preventing the rise and spread of epidemic smallpox, the renewed safety it affords persons of all ages, and the unanimity of European governments in making its performance compulsory so far as possible, are sufficient grounds for any action the association may deem proper to take to render its employment among us more general.

5. That there is no sufficient evidence to show that the vaccine virus now in use has degenerated in any way since the days of Jenner, or that there is any necessity to resort to the cow for a fresh supply.

6. That the operation of vaccination and re-vaccination is perfectly safe in itself, and the popular opinion, that diseases may be introduced into the system by vaccination, when properly performed, is entirely erroneous, and should be eradicated from the public mind.

7. That the recent epidemic conclusively shows, that a great neglect of the proper precautionary and preservative measures prevails in the community, and that some more effective means, than those now employed, should be adopted to prevent its recurrence in the future.

Important Case under the English Medical Act.—We have received from a correspondent copies of papers from Shrewsbury (England), containing the details of a case at the Borough Police Court, in which a person named Andrews is charged with having unlawfully, and wilfully, and falsely taken and used a name, title, addition, and description, to wit, M.D., meaning thereby Doctor of Medicine, and thereby implying that he, the said Thomas Andrews, was then registered under the Medical Act, whereas he was not so registered, he not being a person who was actually practising medicine, in England, before the 1st of August, 1815, contrary to the statute.

The case was heard before a bench composed of magistrates. The charge was brought by the Shropshire Ethical Branch of the British Medical Association as being a violation of the 40th section of the Medical Act, which provides that any person who should wilfully and falsely take and use any title or description under the Act was liable to a penalty not exceeding £20.

The defendant had for some time conducted the business of a druggist. After a certain period it became evident that something more than the dispensing of drugs was carried on; but the profession were unwilling to take action until something came before them which rendered it incumbent on them to do so. The medical gentlemen who had brought the charge had no object to serve in the steps they had taken save the honor of the profession to which they belonged, and the protection of the public from being victimized by persons not duly qualified to practise as medical men. Some two years ago they saw in a public print that Mr. Andrews had received the diploma of M.D. from his college, together with a gold medal. The next thing they had to note was a suit in the County Count, entered by Thomas Andrews, M.D., plaintiff; and the last scene of all was a lamp in front of his shop door, on which the letters "M.D." were painted. All those facts tended to show that the defendant was not laboring under any mistake. They were the unmistakable acts of a man who was practising as a physician. Some time in this year, a respectable woman who was ill visited the defendant at Shrewsbury. She had previously been attended by a medical gentleman of great ability living in her own neighborhood. The defendant attended her regularly at her own house. The climax came, and the poor woman died. The defendant then sent to deceased's brother a bill for £17 18s. 0d. This amount was paid by the brother in instalments, and he had received a receipt to that effect. The question therefore arose in the medical profession whether or no the defendant had not falsely and wilfully represented himself as a physician, whether, in fact, he were duly registered to practise by the laws of England, or whether he were possessed in any way of an honest diploma.

The counsel for the defence in his reply made use of the hackneyed complaint of exclusiveness and oppression on the part of the plaintiffs. He was willing to admit the technical guilt of his client, but he questioned the wisdom or justice which would exclude men, having foreign diplomas only, from sharing the advantages of the British Medical Association. It was quite true that the Medical Act prohibited unregistered men from receiving fees; but surely they might be allowed to practise. The entire argument of the counsel constituted a tacit admission of his client's irregularity.

The action of the gentlemen of the British Medical Association may perhaps be better understood by reference to the numbers of this Journal for April 20 and May 18, 1871; the degree exhibited in court as the basis of the defendant's title was found to emanate from the institution formerly known under various *aliases*, but generally as the American University of Philadelphia. The action taken by the University of Pennsylvania and the respectable medical men of Philadelphia, and the recall of the charter of this bogus institution by the legislature of Pennsylvania, are fresh in the memory of our readers. It was therefore with a view of protecting themselves against the pretensions of persons bearing illicit diplomas that the English medical men brought the charge, and we congratulate them that the court sustained them therein by ordering a fine of £20, or, in default, an imprisonment of two months.

We learn by late advices from London that the defendant in this case appealed from the decision of the court, whereupon the Council of the Association passed the following resolutions, unanimously:—

"1. That, in the opinion of the Council, it is highly desirable in the interest of the profession here at large, that the legality of the conviction should be tested in the Exchequer of Pleas; in order that, if void in law, the General Medical Council may be in a position to urge upon the Government the pressing necessity of inserting in the proposed Amended Medical Bill an effective penal clause to protect the public against illegal practitioners and unqualified pretenders.

"2. That, deeply affecting as the case does the honor and interests of the profession generally, Mr. Chandler be authorized to instruct counsel to appear before the court in support of the conviction.

"3. That, with the view of indemnifying Dr. Styrap—who has kindly undertaken in their behalf the invidious duty of prosecutor and respondent in the case—the Council appeal with confidence to the profession for support."

Virus from the Heifer.—A friend desires us to ask the experience of members of the profession in reference to the use of vaccine virus from the heifer, as compared with that obtained by human transmission. In his practice, both in primary and in re-vaccinations, the animal virus has proved unexceptionally inert. This result is confirmed by testimony which he has received from several medical friends. In replies to this interrogatory a distinction should be made between the true vaccine vesicle and the popular criterion of successful vaccination, "a very sore arm."

Prof. Terry.—The following resolutions were passed at a meeting of students attending the Cleveland Medical School, as a token of respect for the late Professor Terry:—

Whereas, God in his allwise providence has removed, after a lingering illness, our late Prof. Terry, M.D., who died on the 5th inst., after a long life of professional usefulness in this city.

Resolved, That although we bow humbly to the will of Divine Providence, we have received the intelligence of the death of Prof. Terry with the deepest sorrow.

Resolved, That we deplore the loss which the profession has met with through his decease. That the connection of Prof. Terry with this college has been such as to secure the esteem and regard of all connected with it. His loss will be especially felt by the numerous graduates and students of this school, who, while profiting by his instructions, have learned to respect and esteem him.

Resolved, That to the daughter of the deceased and his many personal friends we tender our sincere regards and heartfelt sympathy in this the hour of their great bereavement.

Resolved, That the members of this class attend the funeral at the time and place appointed.

Resolved, That these proceedings be published in the city papers, the Boston Medical and Surgical Journal, and that a copy be sent to the family of the deceased.

Geo. W. Dille,
Jas. F. Wilson,
T. A. Montgomery, } *Committee.*
Cleveland, O., Feb. 7, 1872.

Reproduction of the Crystalline Lens.—M. Milliot communicated to the Biological Society of Paris, Oct. 14, 1871, the results of some experiments on this subject, which he has been for some time engaged upon. After referring to the previous investigations, particularly those of Gruby, Textor, Valentin, and the conclusive experiments of Philippeaux, M. M. gave the particulars of his own, and presented the following conclusions deduced from them:—

1. The reproduction of the crystalline lens in some of the mammiferæ is incontestable. The tubes of the reproduced crystalline undergo, in their reappearance, the same phases that they do during their generation and embryonic evolution.

2. This reproduction only occurs within the capsule of the crystalline. It is in direct relation to the thickness of the cortical layers of the crystalline left after extraction, especially in the equatorial region, and in inverse relation to the age of the animals, and to the lesions of the crystalline capsule.

3. The posterior crystalline capsule seems to take no part in the reproduction of the crystalline, except perhaps in its equatorial portion.

4. This reproduction takes place even when the whole of the crystalline lens has been extracted. It commences generally towards the end of the second week after the operation, and is completed only between the fifth and twelfth months.

5. The reproduction of the crystalline may be repeated, that is to say, it occurs after the extraction of a crystalline previously reproduced, but it is then limited.

These results are derived from more than forty experiments.—*Revue de Cours Scientifique*, Oct. 28, 1871.

Prof. Billroth on Ovariotomy.—In his "Surgical Reminiscences," now publishing in the *Wiener Med. Wochenschrift*, Prof. Billroth thus speaks of ovariotomy:—

"First of all, surgeons must dismiss from their minds that ovariotomy is a dangerous operation; and, through the medium of well-informed practitioners, this conviction must make its way with the public. After ovariotomy skilfully performed according to the rules of art, recovery is the general rule, and a fatal issue the constantly diminishing exception. Comparing it with some other operations, ovariotomy, taking the mass of cases, is shown by statistics to be less dangerous than amputation of the thigh, disarticulation of the shoulder and hip-joints, or excision of the hip or knee. Its danger is about the same as that of amputation of the arm, excision of the shoulder, partial excision of the jaw, lithotomy in the young, and similar operations. We must, however, perform ovariotomy strictly according to the rules laid down by the English operators in their classical works; and only after having attained the same results should we venture to practically put into force our own ideas, in order to improve upon these. I had the good fortune to see Spencer Wells operate upon two complicated cases, and from them, as well as from oral communication with this remarkable man, I learned much. I constantly follow his precepts, knowing that he has long since thoroughly thought out and tested all that can happen to myself. I shall willingly regard myself during my lifetime as his scholar; and contented shall I be if it falls to my lot, by means of this operation, to snatch from certain death one-half the number of lives he has been enabled to save."—*London Med. Times and Gazette.*

Photographed Nerve-sections—Dr. Duchenne, of Boulogne, has presented to the French Academy of Medicine an album containing copies of photographs of the appearances presented by sections of the great sympathetic nerve, the spinal ganglia, the spinal cord, and the medulla oblongata greatly magnified. He fixed the photographs on stone by a process he terms photo-autography, the details of which, however, he does not communicate. It is satisfactory to find him stating that the results confirm the substantial accuracy of the beautiful drawings by Dr. Lockhart Clarke on the central part of the nervous system, and especially upon the medulla oblongata. In his later experiments, Dr. Duchenne has adopted Dr. Clarke's method of preparation with chromic acid and carmine. He states that certain micrographic details come out with wonderful clearness in the photographs, and that by this means some important additions may be made to our knowledge. He has ascertained that in the white substance of the medulla oblongata there are nerve tubules from thirty-three ten thousandths of a millimetre to three-hundredths of a millimetre in diameter.—*Nature.*

A Centenarian Physician.—Dr. Francis Hay, of Columbus, Ohio, recently celebrated his one hundredth birthday. The doctor is a native of Bavaria, having been born in Wurzburg, December 8, 1771. He was a student at that place and there acquired his profession. In 1834 he came to America and practised his profession successfully in various parts of this country, and in 1861 went to Columbus, where he has resided ever since. His wife, to whom he was married in 1802, is now in her ninety-fifth year, is quite nimble and healthy, and bids fair yet to survive a number of years. The doctor himself is wonderfully lithe and strong, for one so old. He is frequently seen upon the streets walking with a firm and steady step, and as upright in his carriage as a man in the prime of life. He is perfectly able to help himself, and in the care of his person asks for no assistance from any one.—*Philadelphia Med. and Surg. Reporter.*

The Commencement Exercises of the Dental Department of Harvard University were held at the Medical College yesterday, at 11 o'clock. The President and Faculty, with members of the corporation and overseers and invited guests, met, as usual, in the Museum, and proceeded to the lecture room, where prayer was offered by the Chaplain of the University, Rev. Dr. Peabody. *Four* gentlemen of the graduating class then read portions of their theses, after which the degree of Doctor in Dental Medicine was conferred on the following persons: the titles of the theses presented by them are also given.

Ames, George Henrey, *Providence, R. I.* The effect on the general system of diseases of the teeth and parts connected with them.
Bancroft, Sidney Chapin, *Lawrence.* Object of Artificial Dentures.
Bartlett, Charles Samuel, *Boston.* Petroleum Naphtha as an Anæsthetic.
Bradbury, Edwin Perley, *Boston.* Dental Caries.
Bell, James Dias, *Stuttgard, Germany.* Dental Hygiene.
Clark, James Adkins, *West Brattleboro', Vt.* Physiology and Pathology of Dentition.
Curtis, James William, *Brunswick, Me.* Dental Pathology.
Geist, George William, *Frankfort, Germany.* Salivary Calculus.
Noyes, George Edward Langdon, *Newburyport.* The Oral Cavity.
Keyes, John Warner, *Boston.* Extraction of Teeth.
Robinson, Frederic Miller, *St. John, N. B.* Digestion.
Silva, Samuel Saiza, *Fayal.* Fractures of the Jaws.
Torrens, Benjamin Henry, *Bangor, Me.* Anæsthesia.
Tucker, Winslow Lewis, *Boston.* Modern Dentistry.
Wilson, Cecil Porter, *Boston.* Dental Caries.

After the degrees had been conferred, the annual address before the graduating class was delivered by Dr. Oliver Wendell Holmes, and was listened to with much satisfaction.

Treatment of Whooping Cough with Compressed Air.—Dr. Freud observes that whooping cough was well described by Willis in 1862, that it is probably contagious, and that the probable carrier of the contagion is the expectorated mucus. Many pathologists admit lesion of the pneumogastric nerve as a cause of the disease, because it has sometimes been found reddened. He considers the division of the stages of the disease into the precursory or catarrhal, the convulsive and the convalescent, to be advantageous. No treatment has hitherto been found materially to shorten the duration of an attack, though belladonna, opium, extract of hemp, hyoscyamus, lactuca, pulsatilla, moschus, castoreum, cochineal, emetics and metallic antispasmodics have been tried; change of air, however, proves of service. Inhalations of the gases in special chambers have been recommended, and were stated to have been very effective, but have now almost become obsolete. More recently chloral hydrate and peroxide of hydrogen have been employed. Now, however, the effects of compressed air are stated by M. Freud to be a valuable method of treatment. It was first recommended by M. Bertin, of Montpelier, and then by Dr. Sandahl, of Stockholm, who reports no less than 102 cases rapidly cured by this means. M. Freud has also tried it and obtained extremely favorable results from its use.—(See Virchow's *Jahresbericht Jahrgang*, 5, Band ii., Heft 1, p. 128.)

Zoö-dermic Grafts.—M. Létrévient, considering the pain and possible accidents incidental to cutting skin-grafts from the human subject, has employed "zoö-dermic" grafts cut from the skin of the belly of a dog in a place unprovided with hair. The grafts have succeeded, and he recommends the process.—*Lyon Médical.*

Medical Miscellany.

DENTAL SCHOOL OF HARVARD UNIVERSITY.—Announcement is made that the summer session of this school will commence Feb. 19th inst. An additional course in dental instruction is thus afforded, to continue four months, and to include branches of study and practical exercises supplementary to the regular winter system. Detailed information with regard to the course will be afforded by the Dean of the Faculty, Dr. T. B. Hitchcock.

BOSTON CITY HOSPITAL.—The following appointments for the ensuing year have just been made:—

Assistant Surgeons—Frank W. Draper, M.D., N. P. Quint, M.D.

House Officers—Ophthalmic Interne, Francis Atwood. *House Physicians*, J. F. Perry, Jr., William P. Hammond, G. W. Clement. *House Surgeons*, Edward W. Sawyer, M. A. Morris, J. R. Morgan. *Ophthalmic Externe*, John C. Cockburn.

THE LATE DR. NATHAN JOHNSON.—In the brief notice of this esteemed physician in the JOURNAL of the 25th ult., his residence for the last forty-five years of his life was stated to have been in Leesburg, Ohio. It should have been printed, that, excepting a residence of 18 months in Leesburg, he resided from the age of 10 years up to Feb., 1839, in Belmont County, Ohio, and from that time till his death in Cambridge City, Indiana. Dr. J. was a member of the American Medical Association, was one year President of the Indiana State Medical Society, and was extensively and honorably known in the sections of country where he resided.

VENESECTION IN PNEUMONIA.—Dr. Simorre, of Contres, ventures (according to *L'Union Médicale*) to transcend the prevailing practice of the period and in the first stage of pneumonia he performs venesection every four hours, day and night, until the disease yields. He believes that the secret of the success which he has obtained lies in the frequent repetition of the operation with short intervals, the disease thus having no chance to take a new departure, but remaining stationary at first, then in a short time succumbing altogether. The opinion is expressed that even shorter intervals may be in some cases desirable.

LADY STUDENTS IN MOSCOW.—Ladies are now to be admitted to the lectures on medicine at the University of Moscow, and to graduate, provided they can pass the usual examinations. It has been found impossible, as at first intended, to institute separate lecture and class-rooms, so that both sexes will meet in the general class-rooms. The Council of the University have fully confirmed the action of the School of Medicine in this matter, and the ladies may therefore expect to enjoy their privileges undisturbed by doubts or fears.—*Canada Med. Jour.*

TO CORRESPONDENTS.—Communications accepted:—The Changes in the Medical Department of Harvard University.

CORRECTION.—The prescription of Dr. Hammond—referred to in our issue of Feb. 1, page 71, top of first column—was accidentally omitted. It is as follows:—

R. Strychniæ sulph., gr. i.;
Ferri pyrophos,
Quiniæ sulph., aa dr. i.;
Acid. phos. dil.,
Syrup. zing., aa oz. ij. M.

Teaspoonful three times a day.

BOOKS RECEIVED.—Plain Talk about Insanity. Its Causes, Forms, Symptoms, and Treatment of Mental Diseases. With Remarks on Hospitals, Asylums, and the Medico-legal Aspects of Insanity. By T. W. Fisher, M.D., late of the Boston Hospital for the Insane. Boston: A. Moore. 1872. Pp. 97. (From the Publisher.)—Animal and Vegetable Parasites of the Human Skin and Hair. By B. Joy Jeffries, A.M., M.D. Boston: A. Moore. 1872. Pp. 102.—Smallpox. The Predisposing Conditions, and their Prevention. By Carl Both. Boston: A. Moore. 1872. Pp. 50.

PAMPHLETS RECEIVED.—A Plea for Scientific Reform. A Letter to Rev. Theodore L. Cuyler, D.D., on the Attitude of Physicians and Scientists towards the Temperance Cause. By George M. Beard, M.D., New York. Pp. 21.—Electricity in the Treatment of Diseases of the Skin. By George M. Beard, M.D., New York. Pp. 13.

DIED,—In this city, 12th inst., Thomas F. Goddard, M.D., aged 27 years.

Deaths in seventeen Cities and Towns of Massachusetts for the week ending Feb. 10, 1872.

Cities and Towns.	*No. of Deaths.*
Boston	126
Charlestown	15
Worcester	25
Lowell	17
Milford	8
Chelsea	4
Cambridge	19
Salem	10
Lawrence	15
Springfield	3
Lynn	12
Fitchburg	5
Taunton	4
Newburyport	6
Somerville	6
Fall River	8
Haverhill	4
	287

Prevalent Diseases.	
Consumption	52
Pneumonia	25
Scarlet fever	14
Croup and Diphtheria	10
Typhoid Fever	8
Erysipelas	6

There were five deaths from smallpox: four in Boston and one in Lynn. Of the deaths from scarlet fever, seven were in Worcester.

GEORGE DERBY, M.D.,
Secretary of State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, Feb. 10th, 126. Males, 68; females, 58. Accident, 2—apoplexy, 4—asthma, 2—bronchitis, 1—congestion of the brain, 1—disease of the brain, 7—cyanosis, 2—cancer, 3—cholera infantum, 2—cholera morbus, 1—consumption, 18—convulsions, 2—croup, 2—debility, 3—diarrhœa, 1—dropsy of the brain, 4—diabetes, 1—diphtheria, 2—erysipelas, 3—remittent fever, 1—scarlet fever, 4—typhoid fever, 2—disease of the heart, 4—intussusception, 1—disease of the kidneys, 4—laryngitis, 1—disease of the liver, 1—congestion of the lungs, 3—inflammation of the lungs, 9—marasmus, 6—measles, 1—cerebro-spinal meningitis, 1—old age, 2—paralysis, 2—premature birth, 5—peritonitis, 2—puerperal disease, 3—suicide, 1—smallpox, 4—scalded, 2—unknown, 6.

Under 5 years of age, 51—between 5 and 20 years, 8—between 20 and 40 years, 32—between 40 and 60 years, 17—above 60 years 18. Born in the United States, 90—Ireland, 26—other places, 10.

THE
BOSTON MEDICAL AND SURGICAL JOURNAL.

NEW SERIES.] THURSDAY, FEBRUARY 22, 1872. [VOL. IX.—NO. 8.

Original Communications.

IMPALEMENT OF ABDOMEN AND THORAX, WITH DISSECTION TWENTY YEARS SUBSEQUENTLY.

Communicated to the Boston Society for Medical Improvement, Jan. 8, 1872,
by JOSEPH SARGENT, M.D., Worcester.

SOME of the older members of the Society may recollect the case of impalement which I reported to this Society about eighteen years ago. The account was published in the transactions of the Society at that time. It was, in brief, an account of a woman 37 years of age, who, in sliding down the hay from a loft, was impaled on the handle of a pitchfork, which entered the body through the vagina, to a distance of twenty-two inches, where it was arrested by the upper left rib, which it apparently broke, and by the woman's feet reaching the floor. There was no injury of bladder, of uterus or of intestine, the urine being passed without blood, and there being no escape of fæces or of flatus and no peritonitis. I found blood flowing from the vagina, and fulness and soreness and pain in the locality of the supposed fractured rib, where there was afterwards emphysema and crepitation as of broken bone, and subsequently prominent callus. I saw, also, the pitchfork-handle, with its abrupt bloody line twenty-two inches from its rounded end, and afterwards placed it in the cabinet of the Society.

The accident occurred August 7th, 1851. The patient died Dec. 29th, 1871; and I made the autopsy Dec. 31st, about forty-six hours after death, of which the following is my report:—

The left thorax was observed to be considerably more prominent than the right. No percussion was made. Dividing the right sterno-costal cartilages and sawing through the left clavicle near the shoulder, I lifted the sternum and the left ribs, exposing the cavity of the left chest, which was found to be entirely filled with proper contents of the abdomen. These were afterwards found to be the stomach, the transverse colon with a few inches of the descending colon, and a considerable portion of the small intestines. All of these had passed through an opening in the diaphragm at the left of the median line. This opening was an irregular oval, with rounded edges, and occupied a large part of the left half of the diaphragm, being about four inches in diameter. The stomach and all that part of the intestines lying in the chest, and also the portion of small intestine in the abdomen were distended with flatus, while the descending colon and sigmoid flexure were scarcely larger than the finger and were filled with scybala. One fold of the small intestine in the chest, at the left side of the aperture in the diaphragm and just above its constriction, was agglutinated by a red, rough thickening of its peritoneal coat so as to present a mass which was at first mistaken for the spleen, which organ was afterwards found in the abdominal cavity and in healthy condition. There were some small coagula lying on the intestines in the right side of the abdomen, which I could explain only by referring them to this diseased surface, a small effusion having occurred in life in the act of vomiting, or by some handling of the patient *post mortem*. The peritoneal coat of the intestines was generally reddened, without being sticky, and there was no appearance of pus or of lymph in the abdomen.

There were adhesions midway of the left costal pleura, between it and the omentum. The transverse colon and a fold of the small intestine were crowding against the clavicle and the upper rib.

The callus of fracture of this first rib was quite conspicuous.*

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* My friend, Dr. J. B. S. Jackson, who has examined all the parts comprised in this description, writes me that he does not think that this rib was ever broken. He says "the cartilage that connects it with the sternum is quite irregular on its lower edge, and there is an extensive development in it of as perfect bone as the rib itself, very different from the common ossified cartilage. Broken cartilage, it is said, unites by bone. Now why was not this cartilage broken? Not perfectly—for the upper edge is smooth and regular." The patient herself,

The left lung was compressed to the thickness of the hand, and was permeable to air only at its anterior surface, and in its lower lobe, and in all for a space of perhaps five inches by one inch. It had also contracted adhesions with the stomach. The heart was crowded to the right of the sternum. It was entirely healthy, as was also the right lung.

On removing the contents of the abdomen, a large, irregular cicatrix was quite obvious in the peritoneum of the left recto-uterine *cul de sac*.

I send for demonstration the sternum and a portion of the left clavicle with the upper two ribs; and also the left lower ribs, with the whole diaphragm and the organs *in situ*.*

I had not seen this patient for nearly three years before she died. Her last medical treatment was under "Homœopathy," which she testified her want of confidence in, as all homœopathists do, by adding potential doses to the numerous comfits which it gratifies their credulity to swallow. There was a saucer full of sugar powders at her bed-side, while she was in the habit of taking four teaspoonfuls of laudanum in a night.

I am told that she suffered greatly and for many years with oppression and flatulence, and constipation, and sometimes with nausea. She complained especially of the left sub-sternal region. She could not lie on her right side nor on her back, and was so tired of lying on her left side that she sat up most of the time for a year before her death, and had bed sores about the coccyx. She had sat up at night mostly for nine or ten years. Her last illness attracted the less attention because her whole life had long been one of so much suffering. She complained, however, especially of pain in the left hypochondrium, and I could not but associate this with the inflamed intestinal peritoneum which I have described in that locality. With this pain, vomiting does not seem to have been a prominent symptom, although my information, here, is not entirely reliable.

I am told that this patient, who in her various distress for many years had sought, at many hands, relief which she could never procure, had for a long time been in the habit of taking opium and morphine in large quantities.

There were present at the *post-mortem* examination Dr. Gage, Dr. Wood, Dr. Geo. Bates, Dr. J. Marcus Rice, Dr. Park and Dr. C. H. Davis.

The foregoing is the paper as presented to the Boston Society for Medical Improvement, the parts having been demonstrated by Dr. J. B. S. Jackson, with the addition of the foot-note as to what I considered the callus of the broken rib and Dr. Jackson's correction. In acceding to numerous requests for its publication, I have but little to add. The case is interesting as being perhaps unique. The treatment was only by enforced rest, the chest being supported firmly by a broad bandage, and the system saturated with morphine, of which the patient got three grains, in one-grain doses, within six hours from the time of the injury. The recovery was, perhaps, not very remarkable, when we look at it in the light, so to speak, of subcutaneous surgery, and consider that, except for the slight injury to the lung, as proved by the emphysema, it was only the vagina and the diaghragm and the rib or cartilage that were injured. The large, rounded end of the pitchfork would much more readily glide by organs than damage them. The question immediately suggests itself how long had these proper contents of the abdomen occupied the thorax? I am entirely unable to answer this, having made no careful examination whatever of the patient after the first fortnight following the injury. In the notes of the examination, at my first visit, I say, the patient lying on her back, "The abdomen was somewhat tumid, but universally resonant quite down to the flanks. The thorax resounds well, also, quite down to the back on each side, and the respiration is heard everywhere in front." And the following day, August 8, 1851, in the morning, I record, "Abdomen resonant universally and not tender. Thorax resonant; respiration vesicular. Some emphysema above left clavicle. Pulse not much accelerated." On the evening of the same day, I record, "Emphysema not noticeable." Aug. 9, 1851, I state, "Pulse 120. Abdomen and chest still resonant and not tender. It gives her pain in left chest, as it has from the beginning, to draw a full breath, and I do not hear the respiration, as patient lies, in the left chest; but I suppose this to be from insufficient expansion. She wears the bandage very tight." On the evening of the same day, I record, "Pulse

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as it is stated in my notes, taken at the time, two days after the accident, said that "when she drew a full breath she felt something snap and catch." And she placed this sensation just on the line of the axilla and near the axilla.

* Dr. Sargent sent the pitchfork to the Society soon after the accident occurred.—Ed.

120. Tongue densely coated. Abdomen and chest resonant. Says that when she draws a full breath she feels something snap and catch in the left chest."

So much for the history of the condition immediately after the injury. I have stated what the patient's subsequent life was. Her death seems to have been by peritonitis, which, strange to say, was in the left thorax. Also, this was, perhaps, without any such nausea as is usually a preliminary and a constant symptom in peritonitis.

Worcester, Jan. 6., 1872.

TREPHINING IN EPILEPSY.

By James T. Boutelle, M.D., Boston.

Cases of epilepsy following depressed fractures of the skull, though happily not of frequent occurrence, are now and then met with by the surgeon. The cause of the disease is so obvious and apparently so easily removed, that an operation seems imperative. The patient, harassed by continued convulsions, discouraged by the total want of success in the various remedies he has tried; and in daily fear of bodily injury, is eager to undergo any treatment which promises even a chance of recovery, and willing to suffer anything and encounter any risk rather than live on in a hopeless condition, with a prospect of approaching idiocy.

A priori, if we remove the cause the effect will cease. It is my purpose now to discover how nearly the facts agree with this theory, as far as can be determined by a comparison of those cases only which have occurred at the Massachusetts General Hospital since its foundation. There have been in all twelve cases, and the record of a few may serve as a type of all, the clinical histories being in general very similar, viz., a blow on the head producing fracture, with depression, recovery from the immediate effects of the accident, then, after an interval of health varying from a few weeks to many years, epileptic or epileptiform seizures begin and continue, with longer or shorter intervals, but generally increasing gradually in frequency and violence.

I.—(Case 1 in table.) Cath. L., æt. 28. Entered Feb. 6th, 1832. Eighteen years ago was struck upon the head by a brick which fell from the roof a house. The result was a depressed fracture of the left parietal bone one inch from the middle of the sagittal suture. A year and a half before, she had an epileptic fit, and others occurred afterwards at irregular intervals. Last fit took place about a week before entrance.

Feb. 21st.—Dr. Warren removed all of the depressed portion with the circular trephine. The piece removed was found much thickened, so as to have caused considerable pressure on the brain.

The after-treatment was decidedly antiphlogistic. Venesection was performed twice; antimonii tart. and cathartics, mercurial and otherwise, were liberally administered. A fit occurred on March 24th and another on April 1st. No more are recorded, and the patient was discharged well on June 17th, one month and seventeen days since the last convulsion.

II.—(Case 3 in table.) M. P., æt. 26. Entered Sept. 19th, 1842. Nineteen years previously was thrown from an ox against a stone wall, and received a depressed fracture of the left parietal bone. Recovered in a few months from the immediate effects of the injury, with the exception of partial paralysis of the right side, and was able to attend to his work for nine years, when, after exposure to cold and wet, he was attacked with necrosis of various bones, chiefly of the lower extremity. Six years before entrance, he began to have epileptic fits, which occurred at intervals of three to six weeks. Remained under treatment until Nov. 4th, during which time he had three fits.

Nov. 5th.—Dr. Hayward removed, with the trephine, a piece of skull one inch in diameter. All the depressions could not be removed, several projecting points being felt at the anterior edge of the incision. The piece removed was three-fourths of an inch thick at one end and one-eighth of an inch at the other, the depressed part having been driven under and united to the skull, projecting downwards upon the brain. Flap retained by one suture.

On the second day after operation, a succession of fits took place. Venesection was performed, but every day fits occurred, five or six in number. Became unconscious on the fourth day and gradually failed. Death on the seventh day.

Autopsy.—Softening and sloughing of dura mater, and arachnoid infiltrated with pus. Abscess of left hemisphere beneath opening.

III.—(Case 4 in table.) Sarah H., æt. 10, entered May 31st, 1849. Received a blow upon the head in infancy and has been subject to epileptiform convulsions ever since. Is of little intelligence, wild and unmanageable. There is a deep depression behind the coronal suture, three or four inches long and an inch wide.

June 2d.—Trephined by Dr. J. M. Warren and the depressed portion removed. Flap secured by four sutures and adhesive straps.

Death occurred on the ninth day, after successive hæmorrhages from the longitudinal sinus, the wall of which was left very thin in dissecting off the bone, and was ruptured several days after operation by a sudden and violent movement of the patient.

IV.—(Case 6 in table.) Ada R., æt 28., entered Dec. 19th, 1850. The patient was of a scrofulous diathesis. Became subject to epileptic fits at 17 years of age, and these have occurred since at irregular intervals of two weeks to two months. Two years before entrance, while in a fit, fell upon an andiron, causing a simple depressed fracture of the skull near the vertex. Was insensible for two or three days. Some months after, three small pieces of dead bone were removed. At entrance, suffering from trouble in both knees and œdema of lower extremities. There was a depression in the right parietal bone near the sagittal suture, and in front of this another, in which the point of the finger can be buried. The fits continued, and on Dec. 8th there was paralysis of left upper extremity, with numbness of left lower extremity. On Jan. 11th, paralysis had nearly disappeared.

Feb. 1st, 1851.—Patient very eager to be trephined. The idea was discouraged, but a consultation of surgeons authorized it if she persisted. The operation was then performed by Dr. H. J. Bigelow. On raising the flaps after a crucial incision, all the bone beneath the wound was found to be eroded and irregularly depressed. A piece of bone including all the depressed portions was removed with the trephine and saw. The bone removed was one-third of an inch thick. Flaps turned back and retained so by a bandage.

The patient recovered with hardly a bad symptom, and was discharged, well, on April 3d, having had no fit since the operation. Entered again two years after for synovitis, and reported that there had been no return of the fits.

V.—(Case 7 in table.) P. McI., æt. 22, entered Dec. 23d, 1857. Three years before entrance was struck with a red-hot poker, which was thrown at him, piercing the frontal bone above the orbit and passing for three inches into the brain. Pulled it out himself, but soon after became comatose. Under the care of Dr. Hooker, of East Cambridge, he recovered and resumed business in three months. Had an epileptic fit four months after the injury, and has been subject to them since at intervals of three months. The fits were very severe, and he was very anxious to have an operation performed. A depression existed over the internal angular process of the frontal bone, partially implicating the frontal sinus. In the centre of the depression the bone is deficient.

December 24th.—Trephined by Dr. J. M. Warren. A sharp spiculum of bone was found to have projected into the brain from the interior of the piece removed. The membranes were very adherent to the bone and scalp, and were carefully dissected off with a probe. At one point where they were very thin a slight tear was made. Wound left open. Patient began to be very feverish on the second day, and was comatose on the third day. Died on the fourth day after operation.

The following is a tabulated statement of the twelve cases.

(See next page.)

From this table we find that of 12 cases 7 have proved fatal, in 4 the epilepsy was cured and 1 case was relieved, giving a mortality of 58·33 per cent. The cases are too few to allow us to draw exact conclusions from them, but it may be of interest to examine them more closely. With regard to the cause of death in the fatal cases, the following table may show something:—

Case.	*Time before death.*	*Cause of Death.*
3	7 days	Sloughing of membranes. Abscess of brain.
4	9 days	Hæmorrhage from longitudinal sinus.
7	4 days	Inflammation of brain and membranes.
8	6 days	Inflammatioa of brain and membranes.
9	39 days	Abscess of brain.
11	5 days	Meningitis.
12	3 days	Meningitis, with sloughing of membranes.

We find that in most of these cases, death has taken place shortly after the operation from acute meningeal and cerebral inflammation, accompanied by abscess of the brain or sloughing of the membranes. In 4 cases, the operation was followed in a short time—one hour to two days—by a rapid succession of fits, followed by hemiplegia and coma.

No. of Case.	Sex.	Age.	Time since injury.	Duration of Epilepsy.	Date.	Operator.	Result.	Cause of Death.	Where Recorded.
1	F.	28	18 years	1½ years	Feb. 21, 1832	J. C. Warren	Cured		Surgical Records, vol. 10, p. 238
2	M.	26		1 week	June 3, 1838	G. Hayward	Cured		" " vol. 19, p. 119
3	M.	26	19 years	6 years	Nov. 4, 1842	G. Hayward	Died—7 days	Meningitis. Sloughing of membranes. Abscess of brain.	" " vol. 25, p. 64
4	F.	10	8 years	8 years	June 2, 1849	J. M. Warren	Died—9 days	Successive hæmorrhages from longitudinal sinus.	Surgical Records, vol. 39, p. 108 and Dr. Warren's Surg. Obs.
5	M.	21	14 years	13 years	Oct. 26, 1850,	J. M. Warren	Cured		Surgical Records, vol. 45, p. 146 and Dr. W.'s Surg. Obs.
6	F.	23	2 years	11 years	Feb. 1, 1851	H. J. Bigelow	Cured		Surgical Records, vol. 45, p. 196
7	M.	22	3 years	2⅔ years	Dec. 24, 1857	J. M. Warren	Died—4 days	Acute meningitis, with suppuration.	Surgical Records, vol. 76, p. 136 and Dr. W.'s Surg. Obs.
8	M.	25	15 years	10 years	Aug. 22, 1860	S. D. Townsend	Died—6 days	Acute meningitis, with symptoms of pyæmia.	Surgical Records, vol. 88, p. 57
9	M.	37	18 years	6 years	Jan. 12, 1861	H. J. Bigelow	Died—39 days	Abscess of brain.	" " vol. 93, p. 154
10	M.	25	9 weeks	4 weeks	Aug. 31, 1863	R. M. Hodges	Relieved.		" " vol. 106, p. 98
11	M.	18	8 years	2 years	Jan. 24, 1866	J. M. Warren	Died—5 days	Meningitis.	Surgical Records, vol. 122, p. 168 and Dr. W.'s Surg. Obs.
12	M.	30	16 years	15¼ years	Nov. 12, 1870	H. J. Bigelow	Died—3 days	Meningitis. Sloughing of membranes.	Surgical Records, vol. 149, p. 4

In three cases, Nos. 7, 8, 11, the dura mater was so firmly adherent that it was unavoidably torn, in two cases during operation and in the other by a spiculum of bone which was not removed. Dr. Warren, in his "Surgical Observations," attributes the non-success of case 7 to this cause, and it seems probable that in the two other cases, the intensity of the inflammation and the sloughing were due to the accident. Also in case 4 the dura mater was very adherent and was left so thin in one place that it was ruptured by a sudden movement of the patient. In this case, Dr. Warren attributes failure partly to closing the wound with sutures instead of allowing it to remain open, the result being that pus collected and aided in eroding the subjacent textures. In case 9, the patient had been doing well for eight or nine days, when abscess of the brain occurred.

It is well known that every epileptic seizure renders the subject more disposed to another, and that the longer the disease has existed the more difficult it is to cure. It seems also probable that the severity of the attacks would also greatly influence the result. Let us compare the fatal and successful cases with regard to this point. (See next page.)

This table shows that in all of the fatal cases, the duration was long, and the fits frequent. Still, in the successful cases, although there is a slight majority of short duration and mild symptoms, there were two in which the attacks were frequent and the duration 13 and 11 years. In one of these, case 6, the patient had been epileptic before the injury and yet was cured by the operation, reporting herself two years after as having had no return of the fits.

It is often difficult, after a patient has left the hospital, to ascertain whether the cure was permanent. Of the four here reported cured, one, who before operation was attacked at intervals of one to two months, had none afterward up to date of discharge, an interval of four months. Case 1 had no fits during the stay in hospital after operation, one month seventeen days, having previously had them at short intervals. In case 2, none occurred up to date of discharge, two months after operation. In case 6, none appeared during two years after leaving the hospital, and no farther record appears. In case 10, reported relieved, there had been several fits during the four weeks before operation. Here the operation was followed immediately by two fits, but no more up to date of discharge, an interval of twenty days.

Fatal.			Successful.		
No.	*Duration.*	*Severity.*	*No.*	*Duration.*	*Severity.*
3	6 years	Fits at intervals of 3 to 6 weeks.	1	1½ years	Irregular, short intervals.
4	8 years	Frequent attacks. Intellect impaired.	2		Duration doubtful. But one fit recorded.
7	3 years	Intervals of 3 months.	5	13 years	Intervals of 1 to 2 months.
8	10 years	Gradually increasing to 7 or 8 per week.	6	11 years	Intervals of 2 weeks to 2 mos.
9	6 years	Gradually increasing to 3 in 24 hours.	10	4 weeks.	Has had "several" fits.
11	2 years	Eight severe attacks.			
12	15½ years	Intervals of 2 months.			

Comparing the condition of these patients at date of entrance and of discharge, it is fair to suppose that a cure was really effected.

If an analysis of these few cases will justify any conclusions, I think the following may be drawn :—

I.—The operation promises a fair chance of success, and unless contra-indicated by an excessively feeble state of the patient, ought always to be performed.

II.—It requires dexterity and the greatest caution on the part of the operator, owing to the fact that the membranes are frequently closely adherent to the depressed bone, and the slightest laceration of them greatly increases the chances of death. There is also much uncertainty, before making the incision, as to the extent of depression and condition of the parts.

III.—The depressions must be *entirely* removed, as any projection remaining behind would nullify any benefit expected from the operation.

IV.—The wound should not be closed, but kept open to allow the freest possible discharge of pus.

V.—The knowledge of the possible occurrence of epilepsy in after life, in consequence of injury to the cranium, should make the surgeon especially careful in cases of recent fracture of the skull, to elevate every existing depression and remove all fragments and spiculæ.

Selected Papers.

HARVARD MEDICAL SCHOOL.

The recent changes and the present and prospective needs of the Medical Department of Harvard University are so clearly and authoritatively set forth in the annual report of President Eliot, just published, that the following selections will be read with interest :—

In order to appreciate the magnitude of the changes made in the Medical School at the close of the year 1870–71, one must know what the ordinary method of American medical schools has been. The main strength of the body of teachers in an American medical school is spent upon long courses of lectures on the chief medical subjects, which are given every year during from four to five months of the autumn and winter. At large medical schools these lectures are so numerous that the student who attends them all goes to five or six a day, and of course remembers very little about any of them. The same lectures are repeated every year. The student who spends two winters in the same school pays twice for the same lectures ; if he remain a third year he can attend them gratuitously. A candidate for the degree of Doctor of Medicine has been required to prove that he has attended somewhere two such terms of lectures, and one of these two in the institution at which he is seeking his degree. He has been furthermore required to produce a certificate that he has studied medicine for at least three years with some regular practitioner. As this practitioner is very often an entire stranger to the Faculty who are to grant the degree, and may be living in some remote or obscure place, this certificate of three years' study is a very uncertain piece of testimony. It has not been the practice to examine with care into the genuineness of such certificates, or into the character or amount of the instruction which the bearers of the certificates have received from the physicians who sign them. At the best schools a formal examination of candidates for the degree has been held ; but this examination has been private, hasty, and notoriously lax. A majority vote of the body of examiners admits the candidate to the degree, so that the new doctor may be, and frequently is, utterly ignorant of nearly half the subjects of examination. The profession and the community have had no guaranty whatever of the quality of the examination. It has been the pecuniary interest of the teachers composing a medical Faculty to have as many pupils as possible, and to grant as many degrees as possible, their receipts being proportionate to the number of fees paid for attendance at lectures and for graduation. The money matters of a medical school, even when the school has been connected with a University, have generally been managed by its Faculty, which has therefore been a sort of trading corporation as well as a body of teachers. As a partial remedy for the glaring evils and deficiencies of the winter's surfeit of lectures, some of the best schools (and the Medical School of this University first of all) established what are called summer schools—courses of instruction given as a rule by the younger and subordinate teachers, and extending through the spring, early summer and early autumn. These supplementary courses, however, were not attended by more than one third of the students who followed the winter courses, and they were never obligatory upon candidates for a degree. Finally, the students, to whom this deplorable system of instruction has been applied, are, in the great majority of cases, persons of scanty preliminary training. Very few are graduates of colleges, and very many are deficient in the elementary branches of what is called an English education. No medical school in the country would venture to publish, uncorrected, one-quarter of the theses which candidates for a degree present as one evidence of their attainments.

It seems almost incredible that the grossly inadequate training above described should be the recognized preparation of aspirants to a profession which was once called learned, and which preëminently demands a mind well stored and a judgment well trained—a profession in which ignorance is criminality, and skill a benefaction —a profession which penetrates the most sacred retreats of human love, joy and sorrow, and deals daily with the issues of life and death.

The Faculty of the Medical School, after long discussions, unanimously resolved to venture upon a complete revolution in the system of medical education. The new plan went into effect at the beginning of the year 1871–72, but it was elaborated and announced in 1870–71. Its principal features are as follows:—Instruction will be given by lectures, recitations, clinical teaching, and practical exercises uniformly distributed throughout the academic year, and the student will be expected to attend throughout the year just as he does in the College or the schools of theology, law, and science. Secondly, the course of instruction will fill three years, beginning with the fundamental subjects of anatomy, physiology, and chemistry in the first year, and carrying the student progressively and systematically from one subject to another until, at the end of his third year, he will have studied all the recognized subjects of a good medical education. Thirdly, in the important subjects of anatomy, physiology, chemistry, and pathological anatomy, laboratory work will be substituted for, or added to, the usual didactic lectures. Every student will have his place and time in the anatomical and chemical laboratories and in the microscope-room; and he will be made to feel that such work is quite as much required of him as attendance at recitations and lectures. Lastly, every candidate for a degree of Doctor of Medicine must hereafter pass a satisfactory examination in every one of the main subjects of medical instruction, and these examinations are to be, in part at least, by questions and answers upon paper, so that the governing boards of the University and the profession at large may know what the standard for the degree really is.

This system makes much greater demands than the old both upon the students and teachers; and it throws the School out of long-established connections with the other medical schools of the country. The Faculty and the Corporation have been encouraged to make these great changes by the belief that in the long run the best course of instruction will command the most public favor, and by their confidence in the support of the medical profession, which has been for a long time demanding some change for the better in the established system of medical education. The new scheme has been so arranged in its details as to present no serious obstacle whatever to students who do not neglect their opportunities. The fees have not been raised, although the quantity of instruction has been greatly increased; and the new plan is not only better for students in easy circumstances, but also more advantageous and less costly than the old for those whose means are slender. To provide the additional instruction which the new scheme demands, some of the members of the Faculty have increased their work in the School, and some new appointments have been made, a part near the close of the year 1870–71, and a part since the year 1871–72 opened. The appointment of an assistant Professor of Physiology and the equipment of a physiological laboratory has put that department of instruction upon a much better footing than ever before.

What the Medical School now needs is liberal endowment. Under its new organization it emphatically deserves, as well as needs, another building, an ampler equipment, and less scanty salaries. * * *

It was a part of the plan for reorganizing the Medical School, that much greater facilities for studying chemistry, pathological anatomy, and physiology experimentally and by the use of the microscope, should be provided for the students than had previously been given them. The Medical Faculty were anxious to find means to enlarge the chemical laboratory in the basement of the building in North Grove St., Boston, and to fit up a new microscope-room and physiological laboratory in the attic. Most opportunely, in June last, Mr. Samuel W. Swett authorized the Corporation to draw upon him for five thousand dollars from the estate of the late George Woodbury Swett, a graduate of the College and of the Medical School, to be used for preparing and fitting up a laboratory of physiology at the Medical School.

In the summer, three large, well-lighted rooms were made in the attic of the building, by throwing out some large dormer windows on the north side of the roof. Two of these rooms are devoted to physiology, while the other is the microscope-room. It was necessary to build a stairway by which to gain access to these rooms, and to provide an additional furnace with which to warm them. Simultaneously the chemical laboratory was greatly enlarged, so that it now contains accommodations for nearly one hundred students. These improvements cost altogether about $7,000, of which about half was chargeable to the bequest of Dr. Swett, and the other half was advanced by the Corporation, to be ultimately paid from the receipts of the school. Never was gift more timely than that of Dr. Swett. His friend, Dr. Henry P. Bowditch, had just been appointed Assistant Professor of Physiology, and yet, however much the Faculty desired to strengthen that department of instruction, and to give Dr. Bowditch the means of teaching the subject to advantage, there would have been great difficulty in providing and equipping a laboratory, had it not been for the opportune provision so liberally made. * *

The main reason for urging the immediate construction of another building for the Medical School is, that the invaluable collection made by Prof. J. B. S. Jackson is exposed to cruel risk in its present position. To the northwest and west of the Medical College are a large number of wooden buildings of the most inflammable sort, and there is little or no vacant land between these tinder-boxes and the College building. Moreover, there are numerous fires within the building for warming it, and in the basement is a chemical laboratory. A building of moderate size and cost would contain the Museum itself; but it is very desirable that a laboratory for pathological anatomy and at least one lecture-room should be connected with the Museum. The report of Dr. Ellis, Dean of the Medical Faculty, presents in their true light the great value of the collection, the risks to which it is now exposed, and the duty of preserving it. This is not a question of enlarging the University's means of instruction; it is simply a question of preserving or losing what has been acquired, with favorable opportunities, in many years by patient labor and rare self-sacrifice. * * * * *

The Medical School has only one endowed professorship. The School is making a determined effort to raise the standard of medical education, and ought to be made in a measure independent of the number of its students. All its professors are scantily paid, and some of them are not paid anything. It is sure to lose students for some years to come by maintaining a high standard for the degree of Doctor of Medicine; for medical education is at a very low ebb, and the degree can be got for very small attainments at schools of fair reputation with the public. The community is nearly concerned with every effort to improve the condition of medical education; the need of a skilful physician is one which sooner or later comes home to every man and woman. The University asks with confidence for prompt and liberal aid in establishing the Medical School upon a firm and independent basis.

ON THE TREATMENT OF PURULENT OPHTHALMIA IN NEW-BORN CHILDREN.

By R. Liebreich, Ophthalmic Surgeon and Lecturer to St. Thomas's Hospital, London.

Gentlemen,—This is not a disease which is amenable to treatment only up to a certain degree, and which may lead to unfavorable results even under the most rational treatment; but, on the contrary, it is an affection which, even in its worst form, is always perfectly curable.

What, now, is this treatment? It consists, first, in careful cleansing; secondly, in the local application of cold; and, thirdly, in cauterizations with mitigated nitrate of silver (one part of nitrate of silver and two parts of nitrate of potassium fused together). Allow me to speak of this in a somewhat elementary and detailed manner. As regards cleansing, it is above all necessary to explain to the attendants the importance of it, for, ordinarily, the fear of injuring the child prevents them from properly opening the eyes in order to remove the secretion. I do not recommend syringes, so generally used, for cleansing—first, because they are dangerous to the attendants, who, in using them, may easily have some of the contagious matter spattered into their eyes; secondly, because by this method the secretion is not completely removed, even after pouring much water over the child. A fine sponge, if you can rely upon its being kept clean, or, if not, small pieces of moistened linen rag, are preferable for effectually cleansing the conjunctiva.

The application of cold, if made in a careful and suitable manner, is of great assistance in the treatment. In the mildest form of the disease this application alone may even effect a cure in a few days. It is then only necessary to apply, for several hours a day, small linen rags, moistened by being dipped in cold water, changing them constantly. In the more serious cases, on the contrary, when there is much swelling, redness, and heat in the eyelids, and a copious discharge of thick, yellow, purulent secretion, it is necessary to apply, day and night, without intermission, small rags, previously placed upon ice, and to renew them continually. Later, when the elevated temperature begins to fall, the applications may be discontinued during the night, and gradually reduced, according to the course of the disease. In order to prevent the child from taking cold, it is necessary that the rags should be of a size merely to cover the eyelids without touching the bridge of the nose, and not to make them too wet.

We now come to the real curative treatment—that is, the cauterization. It should only be done with mitigated nitrate of silver. The eyelids should be reversed one after the other, and, after being carefully cleansed, touched with the caustic, which must be passed over all the swollen and red part of the mucous membrane. Before replacing the eyelids in their natural position, it is necessary to neutralize the free nitrate of silver by a drop of salt water. For the first few days only of the disease we may restrict the treatment to the application of cold, and then commence the cauterizations; repeat them once a day, never more frequently, and, after an evident reduction of the disease, once every two or three days. It is important not to repeat the cauterization until the scar of the previous one has disappeared.

To drop weak solutions of nitrate of silver into the eye is not advisable, even in the mildest forms; for the graver forms it is completely insufficient. Cauterization with pure nitrate of silver ought never to be used, neither in this nor in any other disease of the conjunctiva, as it is impossible to limit its effects. The slightest touch with pure nitrate of silver, in fact, produces a strong cauterization, not only limited to the surface of the mucous membrane, but attacking the subjacent connective tissue. The cicatrization which is the result of such cauterizations produces a permanent irritation of the eye, which cannot be removed by any possible means. None of the other known caustics can replace the mitigated nitrate of silver in the treatment of purulent ophthalmia. Let nobody avoid the trouble of preparing a pencil of nitrate of silver himself if he has not a suitable one already prepared at his disposal. The sole difficulty lies in procuring an iron mould, into which a mixture of one part of nitrate of silver and two parts of nitrate of potash is to be poured, after having been melted over the fire. This difficulty could be avoided by immersing an iron wire repeatedly with one end into the melted mass until, on cooling, a sufficiently thick layer of caustic adheres to it. That is the procedure which I formerly recommended for caustic probes in cases in which it is desirable to cauterize with a very fine point or in a very narrow canal (lachrymal canals, lachrymal sac, ciliary roots, &c.).

In the most difficult cases, cleanliness, cold and cauterization are sufficient, and enable you to form a good prognosis. The case is, however, different when children come under your treatment after a more or less great part of the cornea has been destroyed, the iris projec ing, the capsule of the lens injured; here the prognosis depends entirely, in the individual case, on the existing destructions. Ulcers of the cornea of no great extent, and not too near to perforation, allow of a still favorable prognosis; but it becomes more unfavorable already, when perforation has taken place, and the iris projects. There is a decidedly bad prognosis if almost the greater part of the cornea had been destroyed before the child came under your treatment.—*London Med. Times and Gazette.*

Medical and Surgical Journal.

Boston: Thursday, February 22, 1872.

IMPALEMENT.

We present, in this number of the Journal, the results, as shown by autopsy, of an impalement which occurred more than twenty years ago, wherein the handle of an agricultural instrument passed, *per vaginam*, into and through the abdominal cavity, and, perforating the diaphragm, entered the thorax, without marked injury to any of the viscera lying in its course. This case adds another to the series of well nigh incredible instances of recovery after most serious injuries which have occurred in this country within the last fifty years, and which are scarcely accepted elsewhere as veritable. Within a short time an eminent English surgeon, delivering a lecture to his class, alluded to a case of this kind, occurring in this country, stigmatizing it as "another of those American cases which no one believes outside of the United States." We can afford to smile at the insinuation of Munchausenism contained in the distinguished Professor's expression, in view of the unusual succession of these remarkable cases. That a tamping rod of iron, or a section of gas-pipe, should pass through the anterior lobes of the cerebrum without fatal effect, is certainly wonderful, but not inconceivable. It is, however, *well known* in the profession of this country that the cases have actually occurred; they are authenticated by medical men of the highest reputation among us, and many of us have held in our hands the perforated cranium, which is the best possible witness, after many years, of the recovery which has been deemed by the incredulous in other countries as an instance of American boasting.

In connection with the case of impalement, above alluded to, we present two instances which, by a singular coincidence, we find reported in recent English journals, and which bear so close a resemblance to the "American" case as to substantially confirm the full authenticity of the latter. We deem it, however, a matter of special fortune that after an interval of more than a score of years, the nature of the internal lesions produced by the impalement should be so fully verified by the *post-mortem* inspection.

Mr. Alfred Freer, of Stourbridge, communicated the following case of *impalement*. On the evening of the 9th of August, 1870, I was sent for to see an Irishwoman, æt. 33, the mother of two children, who was said to be dying. It appeared that having finished her work at the top of a corn-rick, she chose to slide off instead of getting down by the ladder; some one had left a hay-fork with the handle uppermost against the stack. She slid down and lighted on the ground upright, impaled on the fork. The farmer ran to her, and with much difficulty succeeded in pulling the fork out of her body; he assured me that it was bloody fully two feet up the stick; the woman fainted and was sick, some brandy was given to her, she was placed in a carriage and brought home. I found her lying on a brick floor, and having lost much blood she was cold and almost pulseless, but sensible, and complaining of great pain in the region of the heart. Breathing very hurried and irregular; a little blood flowing from the vagina. Upon examination, I found this organ uninjured, but on the left side of the unimpregnated uterus about two inches or less from the os cervicis, my index finger passed to its root into a large, irregularly cut wound, apparently formed at the junction of the uterus with the left ligament. I withdrew my finger, and as there was a great gush of blood, I proceeded to plug, filling the wound bit by bit with strips of lint, and could have pushed in any amount of this, evidently into the peritoneal cavity. The hæmorrhage ceased, and I proceeded to examine the side, and found the sixth rib broken midway between the spine and the sternum. Considerable emphysematous crackling reaching up the axilla (punctured pleura). I applied a large plaster and a body bandage, and gave an ether mixture; the woman was too ill to be moved, and lay all night on the floor. Aug. 10.—Has rallied from the collapse; vomits frequently; quick respiration; pulse 120; urine clear. August 11.—Very thirsty; constant cough; great pain in left side;

the vomiting has ceased. August 12.—Better, but suffering from pleurisy; abdomen free from pain and swelling; "soreness" complained of from the pubic region toward the left axilla; no further vaginal bleeding, so tried to-day to withdraw the plug, but after pulling away the first strip, some bleeding began, so desisted. August 14.—Withdrew the remaining plug. From this date the woman steadily improved. On the 21st, I found all emphysematous swelling gone, and she had become bright and cheerful. Beyond a dose of castor oil repeated two or three times, and a full dose of calomel and opium on the 12th to allay pain and produce sleep, the medical treatment was *nil*. September 3.—She was down stairs washing a table as cheerful as possible, but a bit "wake." December 4.—She seems perfectly well; has been poorly at two periods since the accident; says she sometimes feels a pain after hard work, just where the fork struck her. So speedy and complete a recovery after such an impalement is very remarkable. "I felt it go up my side," said the poor woman, and beyond all doubt the pike penetrated by the side of the body of the uterus, traversed the abdominal cavity, and impinging on the diaphragm, pushed with such force against the rib as to break it. I attribute her recovery to one circumstance alone, that the rounded smooth big end of the pike entered her body, and not one of the forks, and that therefore the intestines were *pushed* before it, and thus escaped injury.—*The Doctor.*

IN the *Medical Times and Gazette*, Sept. 23, 1871, a case is detailed in which the writer (Mr. Humphreys) gives the following account of the accident: "Last Good Friday (April 7), George W., aged 11 years, was on a rick of straw, playing at soldiers with another boy, who, being on the ground, charged at him with a rick-stake, on which he fell, and which was driven into him. The stake, which was slightly curved at the upper part, was forty-three inches long and three inches in circumference, being very sharp-pointed at its extremity. As much as seventeen and a half inches of it entered his body. It struck him just in front of the right spermatic cord, and passed beneath Poupart's ligament into the cavity of the abdomen, traversing the whole of the cavity across to the left side, and then entered the thorax through the diaphragm, displacing the heart and pushing it to the right side of the sternum, piercing the left lung, and then passing out between the seventh and eighth ribs, and then under the muscles and integuments in the axillary space, and along the upper third of the humerus, which it kept extended above the boy's head, the external skin not being ruptured."

In the removal of the stake, four hours after the accident, no anæsthetics were given and the boy was held down by four strong men, while Mr. Humphreys and his assistant, Dr. Lawson, used their whole strength in removing it, taking care to have the course of the stake followed by the fingers of a gentleman present to prevent the admission of air into the cavities. Not more than a teaspoonful of blood was lost. The heart still remained displaced. On the boy moving, a lump of the small intestines protruded from the wound, as large as an orange, which was replaced, the wound ligatured, cold, wet compresses applied along the whole course of the passage of the stake, and opium administered.

General emphysema ensued with peritonitis, severe cough and dyspnœa, reddish mucus expectoration and crepitus over left lung. The right testicle sloughed out. The treatment consisted of calomel and opium, poultices, and a diet of gruel and barley waters alternating with beef tea and wine, according to indications.

The writer considers the principal points in the case, "first, the stake having been left in so many hours the injured vessels in its course were sealed by the formation of coagula, and thus hæmorrhage was prevented; and, secondly, the calomel and opium seemed to act as a charm in staying the extensive serous inflammation, for whenever we discontinued their use the symptoms returned."

In six weeks the boy was able to sit up and play and eat his ordinary food, and was put upon quinine and steel, cod-liver oil and wine.

On examination of the boy, five months after the accident, he was able to walk about, and was perfectly free from pain, even on pressure.

There was slight enlargement of the abdomen, with the cicatrix of the wound in the left groin; the right testicle absent. There was also a flatness of the left side of the chest, the left lung being perfectly consolidated from the fourth rib downward, and the breathing puerile all over the right side in consequence. The apex of the heart was still beating an inch out of its right place.—*National Medical Journal.*

THE TREATMENT OF SYPHILIS by the hypodermic injection of the bichloride of mercury has recently received considerable attention in the profession, and has had warm partisans for and against its availability. As a contribution to the literature of this subject, we take pleasure in giving our readers an abstract of an article published by R. W. Taylor, M.D., in the *N. Y. Med. Gazette*, wherein he presents the results of his own extended experience in the new method.

Without making the hypodermic injection of the bichloride the *sine qua non* of treatment, or entirely abrogating the time-honored modes of the administration of mercury, Dr. Taylor has found many indications which favor the employment of the subcutaneous method. He has found it to give the best results in the secondary lesions of the skin, as in roseola in its recent stages, or in the papular syphilides which do not tend to pustulation, in the syphilitic neuroses, arthralgia, cephalalgia and fugitive rheumatoid pains, in iritis of syphilitic origin, and in certain cases of anæmia. It is less effective in the treatment of syphilitic condylomata and mucous patches. It is regarded as a valuable adjunct to the iodide of potassium treatment of the tertiary stage. Regarding the effects of the cumulative action of the remedy, they are considered as at the minimum as compared with other modes of administration. The dose injected was, as a rule, one-eighth of a grain in twelve drops of water; the places of election for the operation being the back, abdomen and loins, parts, in other words, the least exposed to irritation. The time required for the disappearance of the secondary lesions averaged from six weeks to two months.

Dr. Taylor summarizes his observations as follows:—

1. That the use of the bichloride of mercury by hypodermic injections, though a method of treatment possessing certain advantages, is, for various reasons, of limited application.
2. That it is useful in the whole secondary period of syphilis, in roseola, and in the various papular syphilides, and in that form of pustular syphilide in which there is only slight tendency to the formation of pus.
3. That it very rapidly cures all syphilitic neuroses, and that it is very beneficial in the cachexia of syphilis, whether accompanied or not by perceptible lesion.
4. That it possesses no advantages over other modes of administering mercury in the treatment of mucous patches and condylomata lata; and that these lesions yield more rapidly to a local than to any form of constitutional treatment; and that in the syphilitic lesions of the nervous system and of bone, particularly if late, its use is not to be commended.
5. That the very early tertiary syphilitic lesions, provided they are not of an ulcerative character, may be very much benefited by it, and that the simultaneous administration of iodide of potassium internally, may produce a cure more rapidly than when the two are given internally.
6. That the peculiar advantages of the treatment are: the smallness of the amount of mercury used; the rapidity of action; and the absence of systemic disturbance.
7. That a very minute quantity of mercury, averaging from two to three grains, thus administered, may cause the disappearance of very extensive syphilitic lesions, and the alleviation of very severe symptoms.
8. That in the greatest number of cases, an injection every second day of an eighth of a grain of the bichloride of mercury will produce a cure in rather less than two months, and that in very urgent cases they may be pushed, with good effects, to the extent of one or two daily.
9. That the rapidity of cure is the rule rather than the exception, and that the time required may be stated as varying between three weeks and two months.
10. That when the injections are given every second day it is very rare to observe any unpleasant systemic effects of the mercury; and that even when they are pushed more than this, these effects are never as severe as when mercury is pushed to a similar extent by the mouth.
11. That the relapses after this treatment are equally as frequent, as rapid, and as severe in character, as when mercury is given in other ways.
12. That there are unpleasant local effects of the injections, such as pain of the puncture, pain over the site of injection, induration of the connective tissue and abscesses.
13. That in many cases the pain is very

slight, and soon ceases to trouble the patient; but that in others it is so severe and persistent as to necessitate a discontinuance of the treatment; and that in every case, some slightly unpleasant local effects are experienced from the use of the injections.

14. That in exceptional cases, the injections cause a low grade of inflammation in the subcutaneous connective tissue, producing a decided induration in deep portions of the derma; and that, owing to complications which might, perhaps, arise from this condition later on, it is advisable to discontinue the injections in these cases.

15. That this induration may be observed in many cases in which it is only of an ephemeral character.

16. That if proper care is used in administering the injections, abscesses will rarely, if ever, occur.

17. That it is absolutely necessary that the patient should be both intelligent, and, at the same time, thoroughly impressed with the gravity of his disease, in order that he may comprehend the advantages he is to derive from this mode of treatment; otherwise, he could not subject himself to the inconveniences experienced in the course of the treatment.

18. That while in dispensary and hospital practice the injections may be frequently given, in private practice the smallness of a patient's means may often be an obstacle in the way of the continuance of the treatment.

Finally, that, while in some cases the treatment may be useful by reason of its rapid action, and in others, for the smallness of the dose, the inconveniences which it produces, the objections of the patients, and the presence of lesions which contraindicate its use, confine its sphere of usefulness to very narrow limits.

Arsenic in Leucorrhœa and Menorrhagia.—The use of small doses of arsenic, long continued, is lauded by a writer in the *British Medical Journal* for January 6th, 1872, in the treatment of certain obstinate cases of menorrhagia and leucorrhœa. From two to six minims of the liquor arsenicalis are administered as the commencing dose, and the quantity is gradually increased, with occasional intervals for elimination. The indication for the remedy is present in those forms of menorrhagia dependent on uterine hyperæmia of a passive or atonic character. As a result of this treatment, the general condition of the patient is improved, the digestive function becomes more vigorous. The intercatamenial period gradually resumes its normal length, the excessive flowing at menstruation and the leucorrhœal discharge in the interval are controlled, and the hyperæmic tendency is corrected. The author admits that the use of the agent is based on empiricism, but he quotes his own experience and that of eminent gynæcologists (including Simpson, Barnes and Tilt) to support his views.

Is Insanity on the Increase?—An authority (Dr. Maudsley) whose opinion in such matters is of great weight, has expressed his belief, after a thorough comparison and analysis of the statistics of insanity in England for the past 12 years, that the popular notion of an increasing amount of insanity, based on the demand for greater hospital accommodations, is entirely fallacious, and that in reality no more people go mad now, in proportion to the whole population, than formerly.

Chloral Hydrat fulfils a novel indication in the hands of Dr. C. S. Strother, of Barnesville, Ga., that of counter-irritant and local anodyne. In this "new departure" it is said to be excellent in neuralgia, pleurodynia, rheumatism, gastralgia, nausea and vomiting. A saturated aqueous solution of the chloral is applied over the seat of pain with slight friction; and glycerine, olive oil or sweet cream is used as a subsequent dressing. There will in most instances be enough of the chloral absorbed to produce a considerable anodyne effect, in addition to the rubefacient action.

Death from the Hypodermic use of Morphia.—Western medical journals of recent date contain reports of the death of a prominent physician of Pennsylvania from an overdose of morphia administered hypodermically by the patient himself. The medicine was taken for the relief of the pain of erysipelatous inflammation of the face. About a grain of the opiate was taken, and in two hours profound stupor followed, terminating, after two hours more, in death.

STASISTICS OF TRANSFUSION OF BLOOD.—The following summary deductions are from an article recently contributed by Dr. W. B. Drinkard, of Washington, D. C., and reprinted in the *Richmond and Louisville Journal of Medicine.* The paper contains a *résumé* of the history of transfusion as an operation and of the results which have been obtained in all the one hundred and seventy recorded cases. The whole essay is a valuable contribution to the subject.

Granted, then, that blood, as nearly as possible similar to that of man, is the only essential, and that its origin, this condition fulfilled, is of secondary importance, how does it act?

According to Dr. Playfair, "the benefits derivable from it are probably two-fold:—1st. The actual restitution of blood which has been lost; and, 2d. The supply of a sufficient quantity of blood to the heart to stimulate it to contraction, and thus to allow the circulation to be carried on until fresh blood is formed. *Its stimulant action is probably of far the more importance.*" To these I would add:—3d. The supply of a sufficient amount of blood to the cerebro-spinal axis to awaken its exhaustive motive power; and 4th. The supply of nutritive material to the starved economy—every portion of which, in those conditions where transfusion is decided upon as a last resort, must be in urgent need of restoration, and in which every cell and fibre, every ultimate constituent, is failing in its function by a drain of the reparative material needed to bring it, in elementary constitution, up to that point where nutrition is transformed into heat, motion and vital force.

* * * * * *

It is, then, probable that the action of transfusion as a remedial agent is, instead of two-fold, *three-fold:*—1st. Stimulant to the heart and nerve centres; 2d, Nutritive to the economy at large; 3d. Repletive to the circulatory system.

In conclusion, the practical inquiry remains to be answered—to what conditions has transfusion been remedially applied, and with what success?

1. The cases which seem, during the present century, to have been specially selected for the experimental essays of transfusion, are those of *post-partum* hæmorrhage. Of these (not reckoning those of uncertain nature), I find a record of 89 cases, of which 56 were successful; I simply give here the gross results without entering into the details.

2. For cases of surgical hæmorrhage, transfusion has been performed 23 times; result, 12 deaths, 1 doubtful, 1 in which the patient died before the operation could fairly be said to have been commenced. In two other surgical cases the result was unfortunate or null.

3. In hæmorrhages, other than surgical (including the higher grades of anæmia due to hæmorrhage), 13 cases give 5 complete successes, 1 incomplete.

4. Of 9 transfusions performed in surgical cases attended with extreme exhaustion, 8 were unsuccessful.

5. In asphyxia of the new-born child, 3 cases; 2 failures.

6. In cholera, 4 transfusions were followed by death in each case, but in each case, also, after temporary, and in 1 after marked reaction.

7. Poisoning by carbonic oxide, treated by transfusion in 7 cases, yielded to it only in 2; the theory directing its use in these cases being the restitution to the blood in the body of the oxygen displaced by the carbonic oxide taken into the circulation.

8. Dieffenbach made a trial of it once in hydrophobia, without success.

9. Leucæmia, Bright's disease, mania, and marasmus from various causes, have each been treated by transfusion, but with somewhat doubtful result. In some of these conditions, as anæmia, chlorosis, leucæmia, the operation is worthy of more extensive trial.

10. Transfusion has also been suggested, by Dr. Markham, as a means to be used in the cattle plague, and possibly the records of veterinary surgery may contain some late cases in which this means has been used with advantage. I have not, however, looked up this branch of the statistics of the subject, its records not being so generally accessible as those of experimental science on the human subject.

It will be remarked that transfusion has proven much more successful in the hands of obstetricians, or rather in the obstetrical cases, than when used as a surgical or medical agent proper, but it will also be seen that accoucheurs have thus far availed themselves of it much more frequently than either of the other classes of practitioners. And while other suggestions as to the remedial efficacy of transfusion might be added to those here given, and will, doubtless, present themselves as accomplished facts in the future, it is, however, probable that it will always find *post-partum* and primary surgical hæmorrhages the most favorable conditions for its application. In so far as those cases are concerned in which the operation has been performed, they speak for themselves, and the result of the array, I think, justifies the belief that transfusion is finally, and with every right, establishing its claim to be considered one of the least doubtful and most valuable resources of our art.

THE following list of medical students received the degree of Doctor of Medicine at the close of the collegiate term, one week ago, at the Mass. Med. College:—

Geo. Ed. Abbott, Charles Francis Atwood, Gideon Barnaby, Charles David Bradley,* Archibald Keightly Carruthers, Julian Augustus Chase, John Casselli Cockburn, James Francis Couch, Wm. Ballard Cutler, Asahel E. Darling, Donald Darrach, George Erastus DeWitt, Joseph B. Fenwick, Chas. Augustus Fernald, Walter Channing Gale, Eugene A. Gilman, David R. Gun, Francis Augustus Harris, Geo. A. Jordan, Stephen H. Kink, Walter W. Lovejoy, Peter H. McMillan, John Ambrose McArthur, Wm. Neilson, Jr., Chas. Lawrence Randall, James Dwyghrt Seymour, Wm. Freeman Southard, J. Herbert Twombley, Frank T. Vinal, Emory L. White, George H. Wellman, James Weir, Clifton Ellis Wing, Lewis Augustus Woodbury.

ON SICK-HEADACHE.—By SAMUEL WILKS, M.D., F.R.C.P., F.R.S., Physician and Lecturer on Medicine at Guy's Hospital. The true cause of sick-headache lies deep in the patient's idiosyncrasy, and is developed by a hundred different causes. The advice, then, to sufferers is to give as much tone as they can to their nerves by adopting all those methods which experience has shown to be good, and then avoid, as far as is practicable, all those causes which are known to excite an attack. I need scarcely describe a sick-headache—how one rises in the morning more dead than alive, perfectly unable to swallow the smallest particle of food, and often perhaps actually sick; how the head throbs, and the pain increased by the slightest movement; how speaking or doing is a burden beyond bearing; how one prays to be left alone in the utmost quiet, so that he may, if possible, sleep. To other persons the sufferer looks extremely ill, very pale, dark around the eyes, and with contracted pupil. To himself his head feels hot, and the application of cold is most refreshing. The clamminess in the mouth, the nausea and general gastric disturbance, are secondary, and have no connection with any improper meal, and thus is in no way relieved by the too frequent and ignorantly administered purgative. This is not needed, and has no good result. The only remedies which are of any avail are those which act on the nervous system, such as hot tea and coffee; or, after the stomach is quieter, and the more urgent symptoms have passed off, a little wine or ammonia. If the headache take more the form of hemicrania, then remedies are occasionally useful, as the local application of the bisulphide of carbon, or galvanism, and internally the bromide of potassium. This is the only drug which I have really seen to be serviceable. Whilst the nausea exists and the worst symptoms prevail, even this remedy is of no avail.—*British Med. Jour.*

AN ERROR OF THE EMPIRE.—The new and magnificent Hôtel-Dieu, whose construction has already cost many millions of *francs*, and which would require in addition, for its completion, at least five millions, and for the roofing and walls two millions, has been utterly condemned by a Commission of the hospital surgeons and physicians of Paris, after a thorough examination. After hearing the report of some of the most competent authorities, the Society of Hospital Physicians and Surgeons unanimously resolved that the Hôtel-Dieu, by its construction, does not fulfil the conditions required by a hospital in the actual state of science and hygiene. Drs. Hérard and Hardy alone, while admitting the construction of the hospital to be detestable, would have been willing that the eight hundred beds should be reduced to four hundred, and the building utilized for diseases of the skin, eyes, &c., keeping away really sick people—a proposition which was emphatically negatived. As a hospital, this costly error of the Empire would be more murderous than a great battle. It may be utilized as a Hôtel de Ville, in lieu of the building destroyed by the Communists.—*Ibid.*

LOYALTY TO SCIENCE.—The Paris Academy of Medicine have refused to strike off the names of their eminent German colleagues from the roll of members, as they have been commanded to do.

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* Graduated under the new system.

Medical Miscellany.

Death of Dr. Heller.—Dr. Johann Florian Heller died, after a short illness, on November 21. He was 58 years of age, and had for some years past suffered from disease of the heart. He was Director of the Pathologico-Chemical Institute, and teacher of Pathological Chemistry in the Vienna University, beside having extensive employment as a Government expert. The progress of pathological chemistry has been greatly forwarded by his efforts; he was, indeed, the first who placed this branch of medical science in its proper position in Austria, and his work in this direction has obtained general recognition both at home and abroad. Clinical examination of the urine has obtained its present important position, both in hospitals and in private practice, in great part through his exertions. Latterly he has been so much employed in official duties as to be unable to publish any work, but he has continued to inspire younger inquirers with some of his own energy. His well-known periodical, *Archiv f. Pathol.-Chemie und Mikroscopie*, was continued during ten years.—*Wiener Méd. Zeit.*

The Preservation of Vaccine Lymph by Glycerine, as proposed by Dr. Muller, of Berlin, is meeting general favor. The glycerine should be pure. Dr. Muller can testify to the preservation of lymph for two years by this means. When used, or unless to be long preserved, an equal portion of distilled water is added to the glycerine solution, though it may be used undiluted. Dr. Muller considers that the use of glycerine as a solvent facilitates the perfect solution of the lymph, retards the coagulation of the exposed blood, and better insures absorption. —*Michigan University Medical Journal.*

A Novel Method of Producing Sleep in Infants.—Dr. Curran, writing in the *Dublin Quarterly Journal of Med. Sci.*, of the Medical History of the Himalayas, speaks of a curious way which the women of the country have of quieting their children when obliged to leave them. When a mother goes into the field to work, or is otherwise unable to take her child with her, she selects some sheltered spot near a stream, in which she places some straw for a bed for her infant, and then directs, by means of a piece of split bamboo, a current of water, of from one to two or three inches in diameter, on its uncovered occiput and temples. This produces a soporific effect, which generally lasts as long as the water continues to flow. The sleep is said to be very soothing, and children who have been much subjected to its influence are known to have been unusually free from the annoyances incidental to the period of dentition.—*N. Y. Med. Record.*

Simple Luxation of the Semi-lunar Bone. —A case of simple luxation of the semi-lunar bone, on the anterior portion of the right wrist of a sailor, æt. 25 years—an exceedingly rare accident—is reported by C. Granville Stone, student at the University of Maryland.—*Balt. Med. Jour.*

To Correspondents.—Communications accepted:— A Case of Fatal Otorrhœa.—The possibility of the Diagnosis of Syphilis by means of the Microscopic Examination of the Blood.—A Case of Morbid Condition of the Umbilical Cord.—A new and uniform Method of recording the Hearing Power in Otological Practice.—A Case of Phthisis.

Books Received.—The Diseases of Women. By T. G. Thomas, M.D. Third Edition. Philadelphia: H. C. Lea. 1872. (From A. Williams & Co.)—Diagram of the Nerves of the Human Body. By W. H. Fowler, F.R.C.S. Edited, with additions, by W. W. Keen, M.D. Philadelphia: T. Hamilton. 1872. (From Publishers and A. Williams & Co.)

Pamphlets Received.—Ozokerit as a Therapeutic Agent. By Henry Samuel Purdon, M.D., L.R.C.P., Physician to the Belfast (Ireland) General Hospital, &c. Pp. 4.—Report of the Pennsylvania Hospital for the Insane, for the year 1871. By Thomas S. Kirkbride, M.D., Physician in Chief and Superintendent. Pp. 62.—The Classification and Treatment of Inebriates. By Joseph Parrish, M.D., President of the Pennsylvania Sanitarium, Media, Penn. Pp. 16.—Fourth Annual Report of the New York Orthopœdic Dispensary. Pp. 22.—American Association for the Cure of Inebriates. Proceedings of the Second Meeting, held in New York, Nov. 14 and 15, 1871. Pp. 115.—Reports of the Trustees and Superintendent of the Butler Hospital for the Insane, Providence, R. I. Pp. 22.—Report of the Committee on Criminal Abortion. Extracted from the Transactions of the American Medical Associan. Pp. 22.

Died,—At Peekskill, N. Y., Dr. Charles A. Lee, aged 74 years.

Deaths in eighteen Cities and Towns of Massachusetts for the week ending Feb. 17, 1872.

Cities and Towns.	*No. of Deaths.*	*Prevalent Diseases.*	
Boston	136	Consumption	63
Charlestown	12	Pneumonia	36
Worcester	21	Scarlet fever	18
Lowell	17	Croup	10
Milford	5		
Chelsea	2		
Cambridge	18		
Salem	11		
Lawrence	11		
Springfield	10		
Lynn	13		
Gloucester	4		
Fitchburg	3		
Taunton	6		
Newburyport	3		
Somerville	4		
Fall River	10		
Haverhill	6		
	292		

Springfield reports one death from smallpox.

George Derby, M.D.,
Secretary of State Board of Health.

Deaths in Boston for the week ending Saturday, Feb. 17th, 136. Males, 71; females, 65. Accident, 1—apoplexy, 4—asthma, 1—inflammation of the bowels, 2—bronchitis, 5—congestion of the brain, 2—disease of the brain, 6—cancer, 3—consumption, 26—convulsions, 1—croup, 3—debility, 3—diarrhœa, 2—dropsy, 3—dropsy of the brain, 2—epilepsy, 1—erysipelas, 5—scarlet fever, 4—typhoid fever, 2—gastritis, 1—disease of the heart, 2—hæmorrhage, 2—jaundice, 1—disease of the kidneys, 3—disease of the liver, 1—congestion of the lungs, 5—inflammation of the lungs, 17—malformation, 1—marasmus, 2—measles, 1—old age, 4—paralysis, 3—premature birth, 3—peritonitis, 1—puerperal disease, 1 rheumatism, 1—tumor, 1—uterine disease, 1—ulcers, 1—whooping cough, 2—unknown, 6.

Under 5 years of age, 50—between 5 and 20 years, 6—between 20 and 40 years, 31—between 40 and 60 years, 24—above 60 years 25. Born in the United States, 86—Ireland, 32—other places, 18.

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Original Communications.

AN ADDRESS

Delivered at the Commencement Exercises of the Dental Department in Harvard University, February 14, 1872.

By Oliver W. Holmes, M.D.,
Parkman Professor of Anatomy.

We have met under the auspices of Harvard University to recognize by formal ceremonies the entrance of a class of students in Dentistry upon the exercise of their profession. We give to this occasion the time-hallowed name of Commencement. Here ends the period of pupilage, here begins the life of applied knowledge and skill.

Commencement is not a word to conjure with as it was a century ago, when it paralyzed for the day the commerce of the neighboring town, and emptied all the villages in a circle of fifty miles of their black-coated and white-wigged clergymen. It is not the grand pageant as I remember it, when the Governor made his entrance to the Academic precincts, with a troop of horse and a cavalcade of white-frocked truckmen, when the common was covered with tents, as if an army had encamped upon it, and the trafficking and the revelries of Bartholomew's Fair were enacted on the provincial scale upon the green consecrated to the quiet pursuits of learning.

But this Commencement of the Dental School has a real significance, though it makes little show and does not appeal to any vulgar interest. It publishes the fact that a new pursuit has been assigned its place among those chosen professions which a fully organized educational Institution may fitly take in hand, and provide for teaching. And you may be assured that before our old University would take such a step, its governing Boards had satisfied themselves that the time was fully ripe for it. The Dental Profession had achieved its success and had won its place in the estimate of the intelligent public before its teachers were asked to share the labors and the dignities which belong to the Faculties of this great Institution.

The occasion must naturally bring together many who have no other special knowledge of Dentistry than such as they have gained while sitting in one of those magic chairs which fit alike the giant and the dwarf, which would accommodate the visitors of Procrustes and suit itself to all the transformations of Proteus. Were this an assemblage of dentists and dental students only, who would dare to open his mouth for speech before the members of a profession in whose presence kings are silent, at whose command eloquence is struck dumb, and even the irresistible and irrepressible voice of woman is hushed into a brief interval of repose? Even if this first fear were overcome, a speaker might well hesitate to address an audience of experts, who know all that he is like to tell them and a great deal more. But this hour does not belong only to our friends of the dental profession, and they can bear to listen to much that is familiar to them for the sake of their visitors, whose knowledge is limited to what they have acquired after the manner of poets, of whom Shelley says:—

> They learn in suffering what they teach in song.

A few generalities are all that can be attempted in a discourse like this; enough to give some little idea of what the dental profession has grown out of and what it has grown to; a few hints to make us feel more keenly its importance; a picture or two of old superstitions and fancies and barbarisms to contrast with the enlightened knowledge of our own time; a brief mention of some of the leading modern improvements in the scientific and practical departments relating to the teeth; an explanation of the causes which have kept the dental profession from receiving the recognition it has a right to claim, and a vindication of its title to the regard of the community and to a fair representation of its teachings at the great seats of learning. I mention some of the points I shall touch upon rather than discuss, not under formal headings and with strict adhesion to the order in which I have mentioned them, but as they appear to present themselves most naturally.

The greatest difficulty in handling the subject is the extent of its literature, and the infinite detail of ingenuity which has gone to the bringing about of the perfection of its mechanical processes. The value of the teeth to human beings is so prodigious that so soon as attention was fairly turned to their proper management and the methods of repairing their losses, inventive talent precipitated itself, so to speak, upon the new department of human industry. There is no pearl in any royal crown for which a young queen would give one of her front incisors. And those who know what a perfect organ each one of the teeth is, as shown by the more recent revelations of minute anatomy; what pains nature has taken with its complex organization, will not wonder at the estimate set upon it.

The teeth, in their relation to the beauty of the human countenance, have figured in poetry from the earliest times. "Thy teeth are like a flock of sheep that are even shorn which came up from the washing: whereof every one bear twins and none is barren among them," says the imaginative author of the Song of Songs. Their whiteness has been compared to that of snow, of Parian marble and of pearls until verse is tired of the images. The ancient poets and satirists are full of allusions to the beauty and deformity depending on the conditions of the teeth. The ladies who made it their business to please, on Bentham's principle of procuring the greatest happiness of the greatest number, had recourse to every kind of artifice to disguise their defects and commend their charms. Here is one of these tricks as given by Athenæus, in a passage not cited by Duval in his large collection of classical quotations relating to this subject. I give a part of it in English.

"They whose teeth are elegant force themselves to smile even against their inclination, so that the beauty of their mouths may be seen by their visitors. But if their smile is not so pleasant a sight, they hold a sprig of myrtle in their mouths so that it will cover their teeth when they open their lips on purpose or otherwise."

As for the unfortunates whose teeth were discolored or had suffered some of the common changes that age brings about, the satirists scoffed at them in such coarse language that their phrases are quite unbearable to modern ears. Even such a personal remark as that of the graceful Catullus would be considered inadmissible in our time:—"Your mouth is full of teeth half a yard long and your gums are like an old wagon-box." The first circumstance—the seeming inordinate length of the teeth—is a well-known effect of age, which produces a shrinking of the gums. The Frenchmen talk of *dents dechaussées*, unshod teeth, and I remember that Thackeray, in one of his stories, speaks of certain ladies, not very young ones, as "long in the tooth," among other by no means flattering peculiarities.

We have grown more civil than the Romans, but we know the beauty of a fine set of teeth and the deformity of its opposite as well as they did. It is true that men can often conceal the imperfection of their dental arrangements by letting the eaves of a heavy moustache overshadow their mouths. But to women, to hide whose smile would be to take away half the sunshine of life, and to whom nature has kindly refused the growth that would deprive us of it, there is no element of her wondrous beauty that can take the place of white, even, well-shaped teeth. And as beauty is not a mere plaything, but a great force, like gravity or electricity, the art which keeps it, mends it and to some extent makes it, is of corresponding importance.

But we must add to this the consideration that speech is so largely dependent on the perfection of the teeth that our language, we might almost say, loses a letter with every tooth that falls. What can be more painful to witness than the effort of a hapless friend to bite his consonants out of the alphabet when he is reduced to the condition of the infant, whose boneless gums are unfit for any task but the caressing pressure of the maternal mouthful?

And then the humbler but still necessary function of mastication—how much depends on the ease and perfection with which this is performed! You can tell the state of a village by going to the mill. If it has enough to grind, and grinds it well and cheaply, you will find good farms and well-fed people. So if you see a good square jaw filled with good sound teeth, and moved by ten muscles that mean business and do it, you will find in all probability that they nourish a sound frame in man or woman. I have never forgotten the complaint of poor Walter Savage Landor—a sadder one than any of the Preacher's, it seems to me. I quote it from memory.—I have lost my mind, he said; that I do not care so much about, but I have lost my teeth, and I cannot eat.—It has been my custom for many years, when lecturing upon this part of anatomy, to bring forward the skull of a large turtle, in order that its jaws might be compared with those of the human being in very advanced years. The sharpened edges of the alveolar border in the old man show the retrograde process by which he returns to the quasi-embryonic condition, reminding us of that earlier period when he passed through the scale of being upward, to reach the supremacy of which age is constantly trying to deprive him.

It is no wonder, then, that the teeth have been particular objects of attention from the earliest period. The Egyptians, who made specialties of everything, had professional dentists, and it is asserted that artificial teeth of ivory or wood, some of them on gold plates, have been found in the jaws of mummies. The teeth of mummies are said also to have been found filled with gold. I do not find any distinct notice of a dental profession from the time of the Egyptians to that of Galen. You will permit me to quote, in the original, a passage which I have unearthed in one of his treatises, because it makes use of an adjective which will be found in our catalogues and diplomas, where it was admitted after some discussion:—

Omnes tamen istos communi nomine medicos appellant, perinde ut eos, puto, qui a quibusdam membris, quorum præcipue curam gerunt, vocitantur: hos nanque ocularios, auricularios, DENTARIOS (ita dicere liceat) medicos nominant.

It is a long interval from Galen to the middle of the 17th century. But I have not found any other traces of a special dental profession until I came upon the following, which looks very much as if it referred to such specialists. In the Diary of the Reverend John Ward, Vicar of Stratford-on-Avon from 1648 to 1679—the book rendered famous by a reminiscence of Shakspeare, for which the poet would not have thanked him—is the following:—

"Uppon a signe about Fleet Bridg this is written

'Here lives Peter de la Roch and George Goslin, both which, and no other, are sworn operators to the King's teeth.'"

Whether these operators had any other calling than this august office does not appear. Early in the next century the practice of dentistry seems to have been in the hands of silversmiths and jewellers. I think many of us can recall the name of a fellow-citizen, originally, I think, a watchmaker, who branched off without any special training into the business of a dentist, and who acquired a considerable name for filling teeth with skill and success, taking time enough about it, and receiving very handsome pay for his services.

Dentistry as a profession may be safely said to have come into existence during the present century. In this country its growth has been of wonderful rapidity. One would have thought that Cadmus had sown a new furrow full of teeth and that they had sprung up dentists. In 1820, it has been computed that there were not more than a hundred dentists in the United States. In 1858 there were four thousand. I presume they have increased in as rapid a ratio since that time, and in the meanwhile works on Dentistry, journals devoted to it, institutions for teaching it, have become so numerous that it is recognized as one of the great callings of life.

If we would know what we have gained by the elevation of Dentistry into an honorable special calling, we must go back to the time when ignorance, superstition and bungling awkwardness reigned over the whole province of art, now so fully illuminated by science, and in which such admirable mechanical skill has developed itself in every form to relieve suffering, to supply deficiencies, to add in all possible ways to comfort and comeliness.

It is simply amusing to look back two or three centuries and see what men were capable of believing. You will find in Ambroise Paré various forms of words in use in his time to cure the toothache. The notion that this pain was caused by a worm, which Shakspeare refers to, is at least as old as Avicenna. Strange significance was attached to an anomaly which an old friend of mine told me happened in his own person, I mean the same fact that Richard the Third boasts of, namely, that he was born with teeth. A girl was born at Picenum, with six teeth, says Polydore Virgil; and at that time the Turks began to capture our towns far and wide. But nothing quite equals the story of the miller's little son, whose second molar on the left hand side of the lower jaw was a golden one, as good, they said, as if a goldsmith had made it. Some pretended having seen the letters C S C legibly inscribed upon it. I have before me a most exact statement of the facts of the case, authenticated by a number of eminently respectable personages. And I find in Haller's Bibliotheca Anatomica various notices of the storm of controversy excited by the story of this Silesian boy with the golden tooth. What it portends, says Laurence Scholtzius, I do not hesitate to declare is known to God alone. It is to this most famous case that Sir Thomas Brown refers when he says, speaking of the pretended difference of posture in which drowned men and women float, "But hereof we cease to discourse, lest we undertake to afford a reason of the golden tooth, that is, to invent or assign a cause, when we remain unsatisfied or unassured of the event." And in the margin, "Of the cause whereof much dispute was made and at last proved an imposture." All this was a good while ago, but I am myself old enough to remember several curious notions about the teeth which had a considerable currency and came near enough to being believed to be told pretty seriously. If one had a tooth extracted, it must be burned, because if a dog got it and swallowed it one would have a dog's tooth come in its place. I recollect a story told me of a somewhat noted public character whose smile or other attractions had made him dangerous to the sex formerly called the weaker one, a personage too well known to the scandal of his time, who was said to have had his teeth, or some of them, extracted and replaced by those of a living animal—a calf or a sheep. This story was told seriously, and the hero of it I have seen with my own eyes, when age had disarmed him of the fatal fascinations of his earlier days. There is a common notion enough still prevalent that some persons have a complete set of double teeth, as they are called; a jaw full of molars. I never saw one, and I doubt if anybody ever did; but the teeth of Indians and sailors, ground down by the attrition of hard grains or sea-biscuit, might be mistaken for such a malformation.

It is only since the year 1835 that the anatomy of the teeth, out of which necessarily arose new views of their physiology and pathology, can be said to have been fairly understood. It is true that old Leeuwenhoeck had described the "pipes," as he called them, of the dentine so long ago as the year 1678, but his discoveries were so much ahead of his time that they had to wait some generations, like the seven sleepers, before they woke up, to find themselves confirmed. An article in the *British and Foreign Medical Review* for the year 1839 brought before the profession in England and America, in a connected way and with illustrative figures, a series of discoveries which had changed the whole aspect of dental anatomy. We owe all these discoveries or re-discoveries to the invention of the achromatic microscope, which enables any of us to show the student the beautiful intricate structure of the teeth as plainly as he can see the anatomy of the skeleton with the naked eye. You have all studied the exquisite tubular arrangement of the dentine, have speculated on the nature of the contents of the tubes, first demonstrated by Owen in the elephant, have examined the prisms of enamel, and the stellate cells of the cementum; you have seen the vascular systems of the pulp and around the fang and how they run into each other; the tooth is for you a delicately organized, living structure, carrying on nutritive functions through the greater portion of its substance, and capable to a certain extent of repairing its injuries. To those who studied Bell's or Meckel's Anatomy, who read the works of Hunter or Fox on the teeth, all this is a revelation, which only those can fully appreciate who were born in the benighted days of dental heathenism.

While the scientific basis of dental art has made these great advances in modern days, the practice of the art itself has undergone the most wonderful transformation. The work of filling teeth has been carried to such perfection that not only is decay arrested and a tooth which seemed destined to rapid destruction so repaired that it will last a life-time, but where the greater portion of a tooth was gone, it has been built up, so that the miracle of the boy of Silesia is wrought every day by mortal hands, and we see a golden tooth in a living mouth without fearing an invasion of the Turks, or a war with England. I suppose that the improvements in this particular department of dentistry, the invention and perfecting of mineral teeth, their insertion on plates retained by atmospheric pressure, the substitution of the improved forceps for the clavis, and the application of anæsthesia to extraction, would be considered the greatest achievements of modern dentistry.

What a change since the time when teeth were allowed to decay as if they were not worth the gold it took to fill them! What a change from the time of those ghastly *rateliers*, as the French call them, carved in ivory and supported by springs that creaked with every motion of the jaws like the thoroughbraces of an old-fashioned stage-coach! Could anything be less inviting to social intercourse, could anything be more appalling to tender infancy than the sight of one of those dancing sets of artificial teeth, looking as if they were ready to jump from their owners' mouths and fasten upon one as they used to say a turtle's head would do after it was cut off? Mr. Greenwood, of New York, you may remember, carved a set for the Father of his Country, and one can hardly fail to see how the flattened and compressed lips were in a perpetual struggle with those loose-fitting arches and rebellious spirals. Yet this was considered a master-piece of dental workmanship, and I have no doubt that pilgrimages have been made to Mount Vernon by artificers in that line of business who left with a tear in one eye at the sight of Washington's majestic countenance, and a twinkle of satisfaction in the other at the triumph achieved by Mr. Greenwood.

Contrast this state of things with the manufacture of artificial mineral teeth as carried on in this country, where it has been brought to its greatest perfection. More than ten years ago, there were nine factories engaged in their fabrication and more than two million teeth were made in a year. To-day I suppose they must be made and sold by the bushel like the cereal grains, and if the great factories required elevators to handle their products it would hardly surprise us. Compare the delicately tinted, exquisitely shaped porcelain incisors with those frightful ivory palisades that used to play up and down like a portcullis in a manner to terrify all beholders. In fact, the perfection of artificial teeth is carried almost too far. They have come to be for the inside of the head what the wig was for its outside in the days of our ancestors. It was so much more convenient to have a head of hair that one could whisk on and off in a moment, one that never grew gray, one that was just the shade the owner fancied, that was always in curl, that could be laid aside in hot weather to let the cool breeze play over the naked scalp, a luxury which Adam never knew in Paradise, and coming about as near to "sitting in one's bones" as is practicable while we are in the flesh; all this was so much more convenient and comfortable than the arrangement provided by nature, that the wig reigned undisputed for generations, and will, not very improbably, return to bless mankind before our children's children are bald and gray. So with the artificial teeth of this dental millennium in which it is our good fortune to live. They are comely, they never ache, they are contented with their situation and keep their place, which is more than we can say of most of our living servants; they undergo no changes in the mouth, they admit of the nicest personal proprieties, they serve perfectly for articulation, and, though one can hardly crack a peach-stone with them, as some can with their native molars, or use them for biting off the heads of iron nails, as used to be told of Ethan Allen, they can do good service in the respectable and responsible duties of mastication. The consequence of all this is that people are only too ready to have their natural teeth shelled from their gums like so many grains of Indian corn from the cob, and a complete mouthful of artificial make inserted in their place. You miss your friend for a little time—he is in his chamber with his jaws tied up, perusing Zimmermann on Solitude for a few days—suffering from toothache is the figurative language in which his condition is announced. When he returns to society he has recovered his youth, like Æson in the hands of Medea, and his smile is a glittering welcome, a mineral benediction which it is a joy forever to have been blest with. Think again what that preliminary process of edentation would have been in the days when the rustic patient complained that he had to pay as much as his neighbor who had been dragged three times round the room before the tooth came out. There never was a claw on bird or beast that was the cause of such anguish of apprehension, such howls of agony as that diabolical instrument, looking like a vulture's talon, but known by the name of *the key*. It was a key indeed; it may have opened the door of heaven to the sufferer in due time, but while the bolt was turning the victim thought he was in that other place, where the man must be who invented the instrument of torture. *Now*, a patient comes in, takes a few whiffs of an anæsthetic, has a dozen or more teeth submitted to the embrace of the gentlemanly forceps, which lift them from their sockets as one takes out the pegs of a solitaire-board; say rather, as a father lifts his first-born infant; comes to; stares about him: asks when they are going to begin; is told that it is all over; bursts into tears of hysteric gratitude, kisses the smiling dentist, wants to hug all mankind and make the human race happy at once, sobers down presently, ties up his face, and takes to retirement and Zimmermann for a season, as before mentioned.

I have seen something, as probably most of us have, of the practical skill of dentists. But in alluding to some of the more important recent advances of the dental profession, I was unwilling to trust my own fortunately limited experience, and have consulted my friends Dr. Moffatt, of this city, and Dr. McQuillen, of Philadelphia, the late Editor of the journal known as the *Dental Cosmos*, both of whom have kindly favored me with their own independent opinions as to late improvements.

The use of the mallet in filling teeth, every blow of which instrument is a fractional knock on the head to the patient equal to about one hundredth of that which a slayer of cattle gives to a full grown ox to finish him, but which being taken in divided doses allows the sufferer to escape with life—the use of the mallet, automatic or other, far from agreeable as it is, is considered a vast accession to the art of dentistry. Every man must be anvil or sledge, says Goethe, and it is quite plain that our friends the dentists have settled it so far as they and we are concerned.

Nothing has excited my admiration more than the wonderful drills moved by the foot or any other power which may be preferred, finding their way into every corner of the mouth with a sinuous grace of movement such as the serpent displayed for the fascination of our unfortunate first parent, and making their way into the solid dental substance with a rapidity from which the engineers of the Hoosac tunnel might borrow a most significant lesson.

The employment of sponge gold for certain purposes, and the use of heat to develop the cohesive properties of the metal, have enabled the dentist to perform those remarkable feats of building up a tooth from its ruins to which I have before referred.

The public seems hardly to appreciate the very great value of the cement fillings; both the oxide of zinc and the gutta percha, either of which is capable of preserving for long use a tooth too infirm to bear filling with gold.

The use of sheet India rubber to protect a tooth from moisture while being filled, is another most valuable innovation.

I learn that even exposed pulps may be protected by artificial means, and thus a tooth saved as a living organ from an almost hopeless condition.

Important as are these mechanical inventions, the growth of dental associations, educational institutions and journals, mark a still more general advance of the profession. I have known something of the teachers of the art, of their zeal, their capacity, their disinterested desire for the elevation of their calling. I have for years been a frequent reader of the *Dental Cosmos*, and I can bear testimony to the great intelligence with which it has been edited. I have found in its pages much information of interest and value that I have never met with elsewhere, and I have seen a great many medical journals with a broader title-page and a vastly narrower table of contents. Yet this is but one of five dental journals published in the United States, and at least as many are published in other countries. It is from a living and wide-awake profession, then, that the new Faculty is invited to share with us the honorable task of teaching, and we cannot doubt that the community will encourage, and it may be hoped in due time liberally endow the infant offspring of Harvard University, now cutting its first teeth with every promise of health and vigor.

The picture of old age drawn in Ecclesiastes is wonderfully impressive, all the more so in consequence of the obscurity of some of its images. But we all know what the Preacher means when he speaks of the drawing nigh of the years when we shall say there is no pleasure in them, and of the day when the grinders shall cease because they are few, and those that look out of the window shall be darkened. There were no dentists in those days to rejuvenate the old man with a third dentition. There were no opticians to supply his failing vision with the second eyes of old age. The aged people seem to have been in a most forlorn condition at a time when the men of to-day not rarely have a good deal of vitality left and enjoy life and help to make others enjoy it. To us who remember the late Josiah Quincy and Dr. James Jackson long after they were eighty years old, who knew something by report of Lord Lyndhurst and Lord Brougham in their later years, it seems strange to hear Barzillai say to King David "I am this day fourscore years old: and can I discern between good and evil? can thy servant taste what I eat or what I drink? can I hear the voice of singing men and singing women?"

But what would old age be to a great number of persons without the aid of the dentist and the optician? The worn-out laboring man, unused to books and with limited capacity for social intercourse, may get along well enough perhaps with his pipe and his seat in the sunshine or by the fireside. Father Abraham may not have felt the need of spectacles; he went to bed early, no doubt; there was no daily newspaper to read, and he did not shave. But what would become of the scholar, or of persons of any cultivation in our days who at fifty or sixty should find themselves cut off from reading, and not improbably rendered unpresentable, or at least miserably uncomfortable, in society in consequence of imperfect articulation? The care of the eyes is therefore recognized as one of the most important specialties in medicine, and the study of ophthalmology has engaged some of the most distinguished professional talent in this country as well as in Europe. The province of dentistry is only second in importance to the other domain of medical science and art, and rivals it in the intelligence and activity of those who teach and practise it. In one respect it is of greater public interest than the other branch; most children's and young persons' teeth require positive attention, whereas their eyes in the great majority of cases take tolerable care of themselves. I think there are twelve times as many dentists in this city as there are oculists. If every one had twenty eyes in the early part of his life and thirty-two when full grown, the numbers of oculists and dentists might be more nearly equal.

The branch of the medical profession to which this graduating class has devoted itself has not taken its proper position until within a comparatively recent period. But in this respect it has been no worse off than other branches in former times, or than the entire profession at some periods of its history. The Romans contrived to live without doctors for some five hundred years. When they got them at last they were slaves, Greeks for the most part, and kept as appendages of a great man's establishment, as he kept a cook or other servant.

The worthy Vicar of Stratford-on-Avon, to whom I have before referred, gives us some very curious information as to the state of the medical profession in England in his own time and before it. A few paragraphs are worth quoting:—

"The Saxons had their blood-letters, but under the Normans physick begunne in England; 300 years agoe it was not a distinct profession by itself, but practisd by men in orders, witness Nicholas de Ternham, the chief English physitian and Bishop of Durham; Hugh of Evesham, a physician and cardinal; Grysant physician and pope; John Chambers Doctor of Physick, was the first Bishop of Peterborough; Paul Bush, a bachelor of divinitie in Oxford was well read in physick as well as divinitie, hee was the first Bishop of Bristol." "In King Richard the Second's time physitians and divines were not distinct professions; for one Tydeman, Bishop of Landaph and Worcester, was physician to King Richard the Second." And again, "Edmund, Earl of Derby, who dyed in Queen Elizabeth's days, was famous for chirurgerie, bonesetting and hospitalitie."

We may be sure that all this meant a very low condition of medical knowledge. And this opinion is confirmed by what is found in the same diary, a few pages farther on.

"Dr. Sydenham is writing a book which will bring physicians about his ears, to decrie the usefulness of natural philosophie, and to maintaine the necessitie of knowledg in anatomie in subordination to physick.

"Physick, says Sydenham, is not to be learned by going to Universities, but hee is for taking apprentices; and says one had as good send a man to Oxford to learn shoemaking as practising physick."

There were other heretics besides Sydenham, for, as Mr. Ward tell us, "Some have said that physick is no art at all, nor worthy of the name of a liberall science, as Peter And. Canonherius, a practitioner at Rome, endeavored to prove by sixteen arguments."

The Vicar himself practised physic as well as preached, like others of his clerical brethren. We find from him that quarrelling and quackery were quite as common then as now. The university teaching which Sydenham spoke of with such contempt was of course the book-learning of the time, and not the practical instruction of later days. Much as we have gained, the following words from the diary are not so far from truth to-day as they might be.

"There are several sorts of physitians, said one; first, those that canne talk but doe nothing; secondly, some that can doe but not talk; third, some that can both doe and talk; fourthly, some that can neither doe nor talk, and these get most monie.

"Some doctors have a noble out of a pound of their apothecaries; as Dr. Wright; many (have) a crowne, as an apothecarie in London told me."

In this last sentence, and in the fact that the English "general practitioner," so called, has charged, not for his advice, but for his pills and potions, lies the secret of that disgraceful drugging system which has racked the entrails of Englishmen from generation to generation, which we inherited from the mother country, and which is fast giving way to those more rational views in which healthy nutrition and the skilful alleviation of symptoms are taking the place of the exhausting depletions and specific poisons supposed necessary to the cure of disease. In spite of this corrupting influence, English medical science and art asserted themselves successively in men like Linacre, Harvey, Sydenham and Mead, and the practitioners who confined themselves to medical, in distinction from surgical practice, so as to deserve the eulogies of such personages as Dryden and Pope, of Johnson and Parr and Blackstone.

But chirurgery—medical hand-work—fared very differently. No longer ago than when President Holyoke, whose son, the venerable physician, some of us well remember, entered upon the duties of his office, and for years after that time, the London Company of Barber-Surgeons were holding their meetings at their hall in Monkwell street, and it was not till very near the middle of the last century that the surgeons were incorporated as a separate body. It was about the same time, that is, during the reign of George the Second, that the question was discussed in open court before the Chief Justice of England, whether a surgeon was an "inferior tradesman," within the meaning of a certain statute of William and Mary. But we must remember in what contempt other of the most useful occupations were held so long as Society was enslaved by its feudal traditions. Traffic and agriculture were scorned by the descendants of the Norman robbers until they were starved into better views and more civil language than they had inherited.

The toiling tradesman and the sweating clown
Would have his wench fair, though his bread be brown—

says Michael Drayton, in the poetical epistle of Edward Fourth to Mistress Jane Shore. And now the great nobles of Britain are very glad to turn an honest penny by traffic instead of taking it by force from their neighbors.

Lord Stafford mines for coal and salt,
The Duke of Norfolk deals in malt,
The Douglas in red herring;

one son of the Duke of Argyle marries the Queen's daughter, and the other comes to New York and goes into a trading establishment. In this country, more especially, the useful arts have no right to complain of their want of fair recognition. If we do not absolutely forbid idleness, our rich men and women who live for amusement only are very apt to find themselves uncomfortable until they can get out of a country where there are bounties granted to fishermen and nothing but taxes for gentlemen of leisure.

The movement of civilization is a perpetual struggle between the arts of destruction on the one hand and those of construction and conservation on the other. All that the earth teaches us of man in the earlier periods of his ascertained existence shows him to have been a fighting cannibal, who cracked the bones of his deceased relatives with the same pious satisfaction his descendant shows in breaking the seal of a last will and testament. The best man among savages is the one who swings the heaviest club and has eaten the largest number of his enemies, or who carries most scalps at his girdle. It is somewhat better in our day, but the ideal state of society is not yet made quite real. The fighting man is still the one most honored by the world. Even the phraseology of our religion, which points to the Lord of Hosts and the Captain of our Salvation, shows us how deeply rooted is that feeling of the supreme excellence of a military title, which we inherit from the man-eating troglodytes.

But the modern movement, in its truest form, insists that mutual destruction is not the chief end of man. Even the fighting Romans had got so far as to decree that the oak-leaf garland "ob cives servatos" should take precedence of the conqueror's laurel. And Christian civilization is ready to acknowledge to-day that the only really noble warfare is that against the evils which beset the race. Men must be slain, for a long time, always, perhaps, in the greater conflicts of right and wrong, but humanity confesses that, apart from the righteous end to be attained, a bloody victory is only a less calamity than a bloody defeat.

The arts of peace are gaining in consideration over the arts of war, slowly, we must own, but steadily. And if any one of these arts of peace should have appeared entitled to the highest consideration of a civilized people, it would seem to be that which professes to relieve suffering and prolong life. So it would have been if Medicine could have done all that was asked of it. The physician would have been held only second to the Deity had he not too frequently disappointed the expectations of those who were ready to worship him. This always was and always will be. The Children of Israel complained that they had to make bricks without straw; the physician has to make bricks without clay. Many of the patients that come to him had never any physiological right to live at all; they are not much nearer to the true human pattern than that same starved Justice Shallow, who was like a man made after supper of a cheese-paring; when he was naked for all the world like a forked radish; and they come complaining that they are not in condition to run ten miles within the hour, or fight the champion of the heavy weights for the prize belt. It has taken a dozen sickly generations to breed them down to constitutional invalidism, and they want a pill or a powder to set them all right again. Or they come to the physician at fifty or sixty, wrecks of fine constitutions, got up originally without regard to expense, but burned out with strong drink and browned to the marrow with narcotics and nicotics, and want back the virginity of their sodden and corrugated tissues. Or it may be some desperate and violent malady has stabbed them to the death, and because no one has seen a hand with a poniard in it, the patients, or their friends, think that some drop or potion will undo the mortal effect of the invisible dagger-stroke.

These inevitable disappointments have kept the medical profession from receiving that degree of confidence and of honor to which its noble function seemed to entitle it. It does its best, but that is not enough for the eager demand of men for health and length of days. Hence the great number of pretenders and pretentious systems which profess to be able to meet this want. Men, and still more women wish to be deceived, and it becomes a lucrative trade to promise cures as it was to promise gold in the days of the Alchimists.

> Spondent quas non exhibent divitias, pauperes Alchimistæ.

In spite of all the obstacles which meet those who give their lives to the pursuit of knowledge without regard to the prejudices it disturbs, Science was never honored as it is in our time. And the science of life was never studied as at the present day; never with such an apparatus of research, never with such concentration of talent on special investigations, never with such hope of resolving the most difficult problems within the reach of human faculties. Of the science of life medicine is a great and profoundly interesting branch, considered merely as a study. But having regard to the interests it deals with, life and death, well-being and misery, the conditions of mind and body, the happiness or wretchedness of whole communities, we can hardly wonder that in early ages a divine origin was assigned to it, and that He who is called the Lord of Hosts is also spoken of by the nobler title of the Healer of the land and of the people.

Your profession, young gentlemen, is now an accepted province of this great and beneficent calling. It has shared the effects of that onward movement which has asserted for the arts of peace the dignified position to which they are entitled. You are bound to reflect back honor on the Institution which has invested you with authority to go forth as its representatives in the domain of your special duties. The diploma you have received is a certificate of your fitness for these duties, but it implies a promise that you will try to do credit to those who stand sponsors for you as you are christened with your new title. Harvard University has done all it could do to recognize the value of your profession to the community. And it does this at the time when it is making the most strenuous efforts to place medical education on a basis worthy of a branch of knowledge so complex, so vast, so all important to mankind. That open volume with *Veritas* inscribed upon it should be, and it is carried at the figure-head of the argosy of our American intellectual progress. Our University always was and must be a leader in educational movements. She is waiting for those to follow that dare, to pass her that can, and if any drop astern, she must wave them a courteous salute and leave them.

And now, gentlemen, we bid you Godspeed as you leave these halls to exercise the talents which have been here trained, and apply the knowledge which has been here imparted to you. May you find the public ready to appreciate and reward your skill, and so acquit yourselves that the ear which hears you shall bless you, and the eye that sees you bear witness to you; that the smiles of innumerable friends may reveal to you the perfection of your own handiwork, and your praise be in all the mouths of a grateful community!

A NEW AND UNIFORM METHOD OF RECORDING THE HEARING POWER IN OTOLOGICAL PRACTICE.

By J. S. Prout, M.D., Surgeon to the Brooklyn Eye and Ear Hospital, &c. &c., Brooklyn, N. Y.

In otological practice we constantly feel the necessity for a reliable test for the hearing. For want of anything better we use the ticking of a watch, the voice spoken and whispered, tuning forks, &c. &c. The accuracy with which we measure the visual power by Snellen's test-types, and record the results obtained, cannot be arrived at by means of any of the usual sound makers (sonofactors), nor will it be until an instrument can be made which shall *always* produce uniform tones, These tones must be arbitrarily assented to as relatively, not absolutely, correct, just as the visual angle of five minutes, on which Snellen forms his test-types, is arbitrarily chosen, and " does not afford us an absolute but only a relative value." For this reason the attempt to invent a perfect sonofactor for testing the hearing power should be encouraged. In the mean time the sources of sound already mentioned must continue to be used in recording our observations.

A short formula for expressing the results thus obtained has long seemed to me to be necessary—something approaching the brevity of that used for recording the vision. This is based on the fact that the visual power is expressed by a fraction the numerator of which is the utmost distance at which the types are recognized (d), and the denominator the distance at which they appear at an angle of 5 minutes (D), thus giving the formula $V = \frac{d}{D}$. I hold it to be a mistake ever to reduce this fraction to lower terms. If not so reduced, $V = \frac{1}{1}$, or $V = \frac{10}{10}$, or $V = \frac{20}{20}$, means that type No. 1, No. 10, or No. 20, was read at one, ten or twenty feet, and expresses by its own terms, without any *conventional understanding,* just what test was used. In ordinary usage, the formula $V = 1$ is intended to express the fact that type No. 20 was read at twenty feet, but it is more simple and straightforward to say in such a case $V = \frac{20}{20}$, and it is *very little more trouble.*

To return to the hearing: for nearly three years I have recorded the hearing power as a fraction, the numerator of which is the distance at which the particular sound is heard, the denominator the distance at which it should be heard by an ear of good average hearing power. This denominator must vary according to the sonofactor used, and should generally be expressed in inches.

For still further simplification, and that the method may be adapted to international use, I suggest the following abbreviations: A. D., auris dextra, instead of right ear or R. E.; A. S., auris sinistra; P. A., P. aud., potentia auditûs, hearing power; V., vox, the spoken voice; V. S., vox susurrata, whispered voice—or simply S., susurrus, a whisper; H., horologium, the watch.

If this system should become general, then the formula P A, A D, H, $= \frac{12}{36}$, would to all otologists represent the fact that a watch that should be heard at 36 inches was heard by the right ear of the patient at a distance of 12 inches; the formula P A, A S, V S, $= \frac{6}{36}$, would mean that the whispered voice was heard by the left ear at 6 inches that should have been heard at 36 inches. It is not necessary to multiply examples.

By referring to the records of the Brooklyn Eye and Ear Hospital, I find that I commenced to record the hearing power for my watch as a fraction on the 15th of May, 1869. Its use by my colleagues and myself has been continued since then. On the 21st of September of the same year, I read a paper on the importance of early treatment of the diseases of the ear before the Medical Society of King's County, in which the use of this fractional method was explained and advocated.

THE POSSIBILITY OF THE DIAGNOSIS OF SYPHILIS BY MEANS OF THE MICROSCOPIC EXAMINATION OF THE BLOOD.

By Dr. Lostorfer, of Vienna. Translated from the Wiener Med. Presse by James R. Chadwick, M.D.

The general interest which has greeted the matter induces me to give here an abridgement of an article destined for publication elsewhere.

In the examination of the blood from syphilitic patients, I employed the following method. A drop of blood of a syphilitic, upon a slide covered with covering-glass, was placed in a moist chamber for preservation, and was daily searched with a Hartnack ocular 3, objective 10 à immersion.

The result of these examinations, which I have prosecuted without interruption upon numerous specimens of blood from individuals presenting the most diversified forms of syphilitic symptoms, and which proved to be constant in almost every case, was as follows:—

On the third, fourth or fifth day, and exceptionally after twenty-four hours, small, shining corpuscles were observed between the blood corpuscles, a part in a condition of rest, and a part in oscillatory motion. In the following days, these bodies increased in size, so that between the fourth and sixth days they had attained the dimensions of the red blood corpuscles. Most of them were ball-shaped, others irregular, many had one sprout, others several; of these sprouts a part were connected with the corpuscle by a pedicle, and a part not. On certain sprouts one or more secondary sprouts were noticed. After the sixth or eighth day, a "vacuole" formed in the corpuscles which increased in size until it was enclosed in a thin layer, as shown by its double contour. On the addition of distilled water after the vacuoles had formed, consequently after the sixth day, an increase of the vacuoles in the corpuscles, a formation of the same in the sprouts, as, also, in several cases, of long excrescences, similar to the tubular buds (Keimschläuchen) of fungi took place. No further development have I observed, even after six weeks' examination.

The number of these corpuscles varied from 1—50 in the field of vision. At the same time, as well as for months previous to the examination of the blood of syphilitics, I searched specimens of blood from healthy persons in the same way, and in no case found the described corpuscles. Equally without result was the examination of blood from individuals suffering from typhoid fever, lupus, gonorrhœa, diphtheritic ulcers, one with eczema capitis, and one with leprosy. The appearance of these corpuscles, therefore, seems to be peculiar to syphilitic blood, wherefore I have given them the name of syphilis corpuscles. That this peculiarity of syphilitic blood provides us with the possibility of a diagnosis of syphilis I have proved, thanks to the voluntary assistance of Professors Stricker and Hebra. These two gentlemen laid before me—the former five times and the latter twice—a number of specimens of blood, which had been taken partly from healthy, and partly from syphilitic individuals, and numbered; between the third and sixth days, I brought to their knowledge the result of my examinations, with the exception of one experimental series, where the result was negative, and of a specimen here and there, which was designated as useless and set aside. In perfect correspondence with the record, I indicated the blood of syphilitic patients as syphilitic, and that of healthy persons as healthy blood.

Considering that, at these examinations, more than fifty specimens of blood came under observation, and that from these I selected about twenty as diseased, full credence can hardly be refused to this result, which I make known in accord with Professors Stricker and Hebra.

From the clinical histories of the cases examined with positive results, it is evident that the presence of the syphilis corpuscles is not connected with any particular form of syphilis, but is found in the most varied forms. As extreme points I can mention the induration when three or four weeks old, before the appearance of an exanthema, on the one hand, the node in company with cutaneous ulcers, where disease had lasted six years on the other.

As to the source whence the syphilis corpuscles proceed, and the role which is allotted them, the present examinations have given no clew. The solution of these and many dependent problems must be deferred to future examinations.

Bibliographical Notices.

Sudden Death soon after Parturition. By Thomas More Madden, M.D., M.R.I.A., Dublin, Senior Assistant Physician of the Rotunda Lying-in Hospital. Re-printed from the *American Journal of Obstetrics.*

After premising that this is a very shocking accident, and that he has seen several instances of it, the history of which he proposes to narrate, the author proceeds, before reciting them, to devote three pages (his whole article covers less than ten) to a disquisition on embolism, in which the distinction drawn by Dr. Playfair between embolism and thrombosis, and the opinions of Dr. Meigs on heart-clot, occupy generous space. Following this introduction, we might expect cases illustrating sudden death from this particular cause, but we are disappointed. Dr. Madden remarks that he shall merely narrate the particulars of some instances of sudden death soon after labor, adding that the cause, in two of the cases, is not, so far as he is aware, mentioned by any other writer on the general subject, viz., one from sloughing of the cervix uteri, the other from rupture of a varicocele of the left ovarian vein. His cases are five in number; but his promise of giving the particulars of them is so meagrely fulfilled that we are able to determine the diagnosis by conjecture only. Indeed, we approach certainty only by assuming that the conclusions are not justified by the evidence presented, and are, in fact, improbable.

The first case is not one of sudden death at all; the patient succumbed four days after delivery, from sloughing of the cervix and vagina, and from peritonitis. It would seem that the diagnosis might have been easily reached independently of the autopsy which followed.

The second case is that of a woman with contracted pelvis, whose labor had been induced by the uterine douche at about the end of the eighth month, and who was then delivered by forceps. The placenta was expelled naturally, and there was no hæmorrhage, and she was apparently doing well on the morning of her delivery. At 5, P.M., however, her pulse was hardly perceptible, and she was cold and desponding. Stimulants and nourishment were freely administered during the day and night. She slept till 4, A.M., next day, and then appeared tolerably well. At 7, A.M., she sat up, passed water, and took some warm whey. A few moments afterwards, while talking to the nurse, she changed countenance, sank back, hiccoughed once or twice, and expired almost immediately. Within an hour after death, while the corpse was still warm, the body became covered with black ecchymosed patches, and the abdomen enormously distended. This is the whole account of the case, and the author adds his opinion that there can be no reasonable doubt that this was an instance of sudden death arising from the entrance of air into the uterine sinuses. On the contrary, we think that so unsatisfactory a history, with no autopsy, can leave no impression on the mind *but* doubt, with rather a leaning towards the theory that some profound systemic change, perhaps blood-poisoning, suddenly paralyzed the cardiac ganglia or nerve centres, and produced fatal syncope. The remarkable changes in the state of the body after death would support this view ; while nothing in the account given points to the admission of air into the circulation as the cause of death. Even if an autopsy had been made, and the heart and vessels found to contain gases, we should presume that these had been generated in the blood itself, either before or after death, as a result of one of those exceptional forms of rapid decomposition which sometimes attends blood-poisoning. A careful collection and analysis of such gases, resulting in the discovery that they consisted of atmospheric air, would alone suffice to overthrow our presumption and establish that of our writer. We fear that he would think such measures superfluous, and would rather rely on guess or intuition as a basis for his conclusions.

The outline of the third case points strongly towards syncope from depressed nerve power, the consequence, probably, of blood-poisoning, as the cause of the fatal issue. Dr. Madden is in doubt whether to assign it to embolism of the pulmonary artery or fatal syncope ; but very wisely assigns the greater probability to the latter supposition. The patient had been suffering from diphtheria for three weeks previous to her labor, which was very easy ; and during the twenty-six hours which she survived after delivery, she had shown such decided signs of prostration as to render her physician uneasy, and decide him to ply beef-tea and stimulants freely. Having taken some beef-tea, and talked cheerfully with the nurse, she suddenly sat up in bed, gasped for breath, and sank back dead. The history of this case is chiefly remarkable, aside from its omission of important details, for the author's singular balancing of opinion between syncope, and asphyxia from pulmonary embolism, a doubt which it would seem could scarcely arise upon the most cursory observation of symptoms.

The fourth case was that of a desponding primipara, delivered with forceps after a labor of twenty-five hours. About thirty-eight hours later, she was found dead in her bed. She had had slight diarrhœa and vomiting the afternoon following delivery ; at a later hour, she seemed better. Her abdomen was then soft, and the lochia natural. There was no *post mortem*, and from the facts given, it would be difficult, if not wholly impracticable, to form an opinion as to the cause of death. The author believes it a case of fatal syncope, or sudden paralysis of the heart.

The fifth and last case of the series was one of collapse following delivery, an adherent placenta having been removed under chloroform. It terminated fatally in eight or nine hours. A *post-mortem* examination discovered sero-sanguineous fluid in the peritoneal cavity, and a minute aperture in an enormously-dilated, varicose, ovarian vein. No other lesions were found. This case appears to be unique, and worthy of record.

A paper like this which we have analyzed, might well pass unnoticed if the material were drawn from the private practice of an obscure physician, and published in some provincial journal of medicine ; but here is a series of cases observed (heaven save the mark !) in the wards of an extensive Lying-in Hospital in a great European medical centre, read before a Scientific Society of Dublin, and transmitted, as an original communication, to a New York Quarterly, where it is accorded the post of honor.

When so much worthless trash, in the garb of papers on professional subjects, is admitted to journals devoted to the progress of medical science, we believe our inhospitality is pardonable if we fail to give a cordial welcome here to lame, halt and blind productions from across the water. We are already overburdened by the pauper class of our own medical miscellany.

We know, to the credit of our medical press, that much that is characterized by close observation, experiment and research, careful and conscientious deduction, and thoughtful conclusion, finds its way to its columns. Let us encourage the preponderance of such contributions, and cordially recognize worth even in the report of a single well digested case; nor let us spare an occasional thrust at incompetence or carelessness, when these become more than usually conspicuous, to the end that both editors and contributors may realize that American Medical Science is as strict and conscientious in its methods, if not as patient and persistent in its searchings, as that of any nation of the Old World. G.

Neuralgia and the Diseases that resemble it. By Francis E. Anstie, M.D. New York: Appleton & Co. 1872. Pp. 362.

This very instructive work, from the pen of one so thoroughly original as Dr. Anstie, cannot but receive general commendation. The subject itself is of such a vexatious nature that any attempt to enlighten the profession concerning its pathology and treatment will be gladly welcomed, and more especially so when the attempt is made by one of such acknowledged ability as the present author. The work has been for some time anticipated, and its character was in a measure foreshadowed by Dr. Anstie's contribution on the same subject to Reynolds's "System of Medicine."

After some general considerations on the subject of pain as the most prominent feature of the various maladies grouped as neuralgic, wherein, among other topics, a distinction is made between pain and hyperæsthesia (the former being a *lowering* of true function, due to a perturbation of nerve-force) the author passes to a discussion of neuralgia in its clinical history, its complications, its pathology and etiology, its diagnosis and prognosis and its treatment. In the study of the pathology and etiology of the disease, the proposition is laid down that neuralgia has its essential seat in the "posterior root of the spinal nerve in which the pain is felt," the change in the nerve-tissue being an atrophic one; an hypothesis which is certainly original, and, at first view, well chosen. Whether future pathological and microscopical investigations in this direction will confirm this theory the author himself leaves an open question, but prefers to rest his case on clinical evidence. Among the interesting points in this connection will be found the views concerning hereditary transmissibility of neuralgia, and the agency of cold as a causative influence.

The chapter on the complications of neuralgia is very instructive. Vaso-motor paralysis, changes in nutrition (as in the turning of hair to grayness, alteration in the mucous tissues, &c.), the occurrence of herpes zoster, inflammatory affections of the eye, muscular paralysis, impairment of sensation and of secretion are in turn discussed.

In the study of a disease which has always been to a great degree an *opprobrium medicinæ*, the author finds it a difficult task to suggest anything new or satisfactory in the matter of treatment. A generously ordered diet, he deems of prime importance. The medicinal treatment, both local and constitutional, embraces remedies with which the profession are pretty generally acquainted, but many admirable points in therapeutic application are shown forth. We may say, in passing, that the author has a right to speak as one having authority in the treatment of neuralgia, having himself been for many years a victim of its torment.

Among the diseases that resemble neuralgia, Dr. Anstie discusses spinal irritation, the pains of hypochondriasis, alcoholism, syphilis, colic and dyspeptic headache.

We cannot assert that the original ideas contained in this manual will so far meet the approval of the profession as to become authoritative, but we venture the opinion that few medical readers will peruse the book without obtaining a great amount of information, presented, withal, in a very readable shape. As a systematic treatise, the work was much needed, and the profession is under obligation for labor so well performed.

An Introduction to Pathology and Morbid Anatomy. By T. Henry Green, M.D., M.R.C.P.L., &c. Philadelphia: 1871. Pp. 260.

If it were well to read a small and an elementary work on a subject which can only be treated fully and completely to be, in any degree, understood, which requires the most thorough discussion of theories and views at this stage of pathological knowledge, then the author has done well in writing a book which he speaks of in the preface as "strictly elementary." We can say, with truth, that, so far as the author goes, he has done his work well; that is, he has expressed in a small space the views of Rindfleisch, Virchow, Billroth, Stricker and other modern pathologists: and, for a brief *résumé* of the views of these writers, the introductory treatise of Dr. Green is a capital one. We feel, however, that Pathology is just now emerging from a period of uncertainty, and that it is making rapid strides toward the fixedness of definite knowledge, nearer toward the position of an exact science. As *general* text books in pathology we have the admirable works of the German scientists which we have mentioned, and we are confident that the entire ground cannot be properly covered in less space than they give to it. The multiplication of general treatises can add nothing to the value of the literature of pathology. The farther study of the subject can only be advanced by special investigations on special topics.

We would not underrate, however, the work of Dr. Green; for in what he has written, he has done well; we only express the opinion which every student of medicine must have forced on him, that the day has passed when he can gain a proper study of pathology from a meagre text book. S.

Medical and Surgical Journal.

BOSTON: THURSDAY, FEBRUARY 29, 1872.

MATHEMATICS AMONG THE FLAPS.

WE are gratified to believe that science is still on the march. The following directions for amputating the leg are taken from an article of six quarto pages on this subject in the *Gazette Hebdomadaire de Médecine et de Chirurgie* of June 22, 1871, and will, we trust, be favorably received by our progressive friends here. We hasten to translate them.

"*Traumatic Surface.* I will suppose that the limb amputated is a cylinder consisting of a single bone surrounded by flesh, the arm for example, and that it has a radius of 5 centimetres.

"*a.* The circular amputation is performed, the skin being cut at a distance equal to a half of three times the radius, or 7·5 centimetres below the bone. After the retraction of the muscles, a funnel-shape is obtained, of not more than 5 cm. in depth, instead of 7·5 cm. The surface of this hollow cone, considering the osseous section as a point, is given by the formula πRl, in which l, the generator of the cone, $=\sqrt{R^2 + H^2}$, H being the length of the retracted skin measured from the level of the osseous section. $R = 5, R^2 = 25$. $H = 5$ approximately, hence $H^2 = 25$, and therefore $l = \sqrt{25 + 25} = \sqrt{50} = 7$. The surface of the cone, $\pi Rl = 3\cdot1416 \times 5 \times 7 = 110$ square centimetres.

"*b.* The amputation is made by two rounded flaps, of a length equal to 7.5 cm., reduced to 5 cm. after retraction. The two flaps have the cut surfaces of a semi-elliptical form equal to each other; the total surface is then an ellipse, whose smaller axis is the diameter of the limb = 10 cm., and the larger 14 cm., that is to say, twice 7, a figure which obtains for both flaps, as the generator of the cone l. The surface of the ellipse is given by the formula πAB; A and B representing the unequal demi-axes of the ellipse, that is 5 and 7, the total surface is $3\cdot1416 \times 5 \times 7 = 110$ square centimetres, the same as in the circular infundibuliform operation."

Now let the reader carefully observe the following significant difference in the single flap operation, and draw his own conclusions.

"*c.* With a single rounded flap of 15 cm. reduced by contraction to 10 cm., the whole traumatic surface comprehends two parts. 1st, a semicircle, transverse section of ½ the cylinder, or $\frac{\pi R^2}{2} = \frac{3\cdot1416 \times 25}{2}$ = 39 square centimetres; 2d, a semi-ellipse, of which the short radius is 5 and the greater $= \sqrt{R^2 + H^2}$; here $H = 10$, whence $\sqrt{25 + 100}$, or 11, which gives by the formula $\frac{\pi AB}{2}$, the result

$$\frac{3\cdot1416 \times 5 \times 11}{2} = 86.$$

"To sum up, the bleeding surface measures 39 cm. + 86 cm. = 125 square centimetres."

All this is indeed as it should be. After the above calculations, there is supposed to be an interval of rest, during which an opportunity is afforded for these equations, which express feelings we have long stifled, to heal and make a stump; the stump of progressive science. It is plain that no sloughing, nor hospital gangrene, nor retraction of skin, nor necrosis of the bone is likely to occur with mathematical flaps; and yet is it wholly wise to ignore these frequent contingencies? Why not take them into the calculation in the characters of x and y for example, and why not let a poultice = P, and carbolic acid appear in its natural character of $C^6 H^5$ -O -H, and so by interweaving and mixing a poultice with the mathematics, make this amputation still more complete? Every modern surgeon of pretension will of course carry the flap equations in his waistcoat pocket, and will recognize the importance of a blackboard in the operating theatre. For ourselves we are prepared to concede that the steadiness of an old-fashioned surgeon sinks to the level of a delirium tremens when compared with this extraction of a surgical square root upon the brink of an important operation, or in the bosom of an agonized family. Rival surgeons hurrying to a scene of disaster each with a complete amputating case under one arm, will in future be observed to carry a slate and pencil under the other; or better still, will ingeniously add a slate to the surreptitious spirit lamp, test-tube and bottles, urinometer, stethoscope and thermometer, lately contrived in England to be constantly carried in the crown of every true practitioner's hat.

Sketch of Charles A. Lee, M.D. *Messrs. Editors,*—My acquaintance with Dr. Charles A. Lee began in 1840, in the office of Dr. Horace Green, and at the "Medical Reunions" in the city of New York. He was at that time editing the *New York Journal of Medicine* and writing largely for various medical and scientific works. In 1848, he wrote to me inviting me to take the Chair of Surgery, in Geneva Medical College, New York, made vacant by the resignation of Prof. Frank Hamilton, who, with Prof. Austin Flint, left for Buffalo.

My colleagues were Profs. Lee, Sweetser, Coventry, Hadley, Sen., and Webster. This combination lasted until 1853, six sessions, during which time my intercourse with Prof. Lee, social and professional, was most pleasant and profitable. After this period, Prof. Lee lectured in many of the Northern and Eastern Medical Colleges, and was, at the time of his death, "Emeritus Professor of Materia Medica" in the Buffalo University. In truth, after his removal from New York city to Peekskill—what is not uncommon in New England—he became peripatetic, and was a professor in several medical schools at the same time. This practice made it necessary to do double duty in each school in order to gain time. In addition to a very laborious system of teaching, he did at each of the schools a large private practice, was consulted by the people from great distances, and physicians of the neighborhood brought to him their chronic cases in great numbers, to obtain the benefit of his experience. In the performance of these duties, he was strictly honorable towards his medical brethren, and just to his patients, observing the "regulations of the code" in its letter and spirit. Well-skilled in pharmacy, materia medica and pathology, his therapeutics was most successful.

He was eminently a peace-maker, and was frequently called in as umpire among the jarring elements of a Medical Faculty.

His investigations extended to almost all departments of science, but were especially directed to botany, materia medica, chemistry and the practice of medicine. He wrote a Monograph on the Botany of the State of New York. He could lecture on any one of the several branches usually taught in a medical school. His reasoning powers were chiefly those of comparison, while his perceptive faculties were large and active. He was a diligent student, and naturally industrious. In Religion he was a High Church Episcopalian, and performed assiduously and conscientiously the duties of a consistent Christian. He was a friend and advocate of the Temperance reformation.

He was not much of a public speaker, and seldom ventured on any rhetorical display; he read his lectures from manuscript, in a clear, conversational tone, while his gestures were few.

He was one of a committee of learned men, who investigated the spirit-rapping phenomena of the Fox girls, of Rochester, New York, whose report exposing that fallacy was transmitted to the French Academy of Sciences, inducing the appointment by that learned body of another committee. Curiously enough, he afterwards became a convert to the doctrine of spirit rappings, and felt very indignant with his friends, who would not believe as he did.

He, with his colleagues in Geneva, with the assistance of the class, were the first to open the doors of a regular Medical College for the admission of a lady student. Miss Elizabeth Blackwell went through the regular courses of lectures and examinations, and graduated with honor in that Institution. She has the names of all the Faculty on her diploma; she wrote a thesis on typhoid fever, drawn from cases observed by herself, in the Blockley Hospital, in Philadelphia; she also attended a private course of lectures on "Operative Surgery," together with a course of private dissecting, in the lecture and dissecting rooms of the writer. Her name and reputation are too well known to require farther comment.

Dr. Lee died on the 14th inst., at Salisbury, Conn., at the ripe age of 72. He graduated at Williams College, and studied medicine in New York city. Personally, he was above the medium height, with broad shoulders, long limbs, large head, covered with gray hair extending down low over the forehead, thick eyebrows, overhanging bright and benignant eyes, Roman nose, and a mouth expressive of sweetness, with a well-developed, curved chin. His walk was that of a student, his head inclined forward; his voice was clear and emphatic, and when he laughed, shrugged his shoulders in a peculiar way.

James Bryan, M.D.

Elizabeth, N. J., Jan. 23, 1872.

Medical Miscellany.

City Hospital Appointments.—Dr. William Read has been elected one of the visiting physicians of the Boston City Hospital, to fill the vacancy occasioned by the resignation of Dr. A. D. Sinclair.

Dr. O. W. Doe has been appointed physician to out-patients, in place of Dr. Wm. B. Mackie, resigned.

The Alumni Association of the Jefferson Medical College proposes to hold a social reunion during the meeting of the American Medical Association in Philadelphia, in May next. The Alumni of the College are cordially invited to attend.

Those who expect to be present are requested to send their names and addresses to either of the secretaries, J. Erving Mears, M.D., 222 South 16th St., R. J. Dunglison, M.D., 636 North 18th Street.

During the examination before a committee of the Pennsylvania Legislature of the practice of selling medical diplomas by the "Philadelphia College," a negro swore that he had purchased a diploma for sixty dollars, although he had never attended a lecture. Another man, who had attended a few lectures, obtained a diploma after an examination so trivial in its nature that it disgusted even the aspiring "doctor" himself. But the most remarkable testimony was given by a witness who testified that he arranged with the faculty for the issue of a diploma for a child two years old, the professor, who knew nothing of the child's age, naming the sum and agreeing to date back the diploma four years.—*Exchange.*

Arterial Transfusion of Blood is recommended by Prof. Hueter, in the *Centralblatt*, in preference to its introduction by the veins; two reasons being that the introduction of air into the heart and pulmonary circulation is thereby prevented, any air admitted being absorbed in the passage of the blood through the capillaries; and that a larger quantity can be in this manner introduced without risking over-distention of the heart. The introduction of such small quantities as two, three, or four ounces, he regards as useless—in most instances from eight ounces to a pound being requisite. He has tried the plan with success in three cases, where it was used to remove the symptoms accompanying intense septicæmia.—*N. Y. Med. Record.*

Chloride of Potassium.—Dr. Lander has substituted the chloride for the bromide of potassium in the treatment of epileptics with a success which he declares to be identical. He begins with smaller doses; but doses of 75 to 105 grains daily have been borne without inconvenience for months in succession. He states that it is more active, one-sixth of the price, and without the inconvenient secondary effects of bromide of potassium. He believes that, in the stomach, bromide is converted into chloride of potassium; and that, for many reasons, it is desirable to administer it at once in that form.—*Philadelphia Med. and Surg. Reporter.*

Dr. John Byrn has been appointed Professor of Gynæcology in the Long Island College Hospital.

Harvard University Medical Graduates.—The list of Graduates published in the Journal last week was printed as received by us. Several of the names were incorrectly spelled—a corrected list of which follows:—

Chase, Julian Augustine.
Cockburn, John Cassilis.
Couch, John Francis.
Cutler, William Bullard.
Ginn, David Richard.
Harris, Francis Augustine.
King, Stephen Henry.
Seymour, James Dwight.
Wier, James.

Notice.—The Publishers find it necessary to request subscribers in making their remittances not to send checks except on banks in the large cities. Those on country banks are collected at comparatively great expense, and sometimes with much difficulty.

Pamphlets Received.—The Question of Quarantine: The Nature and Prevention of Communicable Zymotic Diseases. By Alfred L. Carroll, M.D., New York. Pp. 21.—Transactions of the Medical Society of the State of California, during the years 1870 and 1871. Pp. 253.—Detection of Pulmonary Elastic Tissue in the Sputum of Phthisis. By Joseph G. Richardson, M.D., Microscopist to the Pennsylvania Hospital. Pp. 8.

Deaths in nineteen Cities and Towns of Massachusetts for the week ending Feb. 24, 1872.

Cities and Towns.	*No. of Deaths.*
Boston	100
Charlestown	8
Worcester	16
Lowell	21
Milford	3
Chelsea	5
Cambridge	22
Salem	12
Lawrence	9
Springfield	5
Lynn	12
Gloucester	5
Fitchburg	5
Taunton	5
Newburyport	4
Somerville	8
Fall River	15
Haverhill	2
Holyoke	5
	262

Prevalent Diseases.	
Consumption	43
Pneumonia	41
Scarlet fever	10
Typhoid Fever	9
Croup and Diphtheria	8
Measles	7

Boston reports three deaths from smallpox.

George Derby, M.D.,
Secretary of State Board of Health.

Deaths in Boston for the week ending Saturday, Feb. 24th, 100. Males, 37; females, 63. Abscess, 1—apoplexy, 4—asthma, 1—inflammation of the bowels, 1—bronchitis, 3—inflammation of the brain, 1—disease of the brain, 2—canker, 1—cholera infantum, 2—cyanosis, 1—consumption, 21—convulsions, 2—debility, 1—diarrhœa, 2—dropsy, 1—dropsy of the brain, 2—epilepsy, 1—erysipelas, 2—scarlet fever, 3—typhoid fever, 4—disease of the heart, 7—hernia, 1—intemperance, 2—disease of the liver, 3—congestion of the lungs, 4—inflammation of the lungs, 6—marasmus, 3—measles, 2—old age, 3—paralysis, 1—puerperal disease, 1—pyæmia, 1—smallpox, 3—disease of the spine, 1—suicide, 1—whooping cough, 2—unknown, 3.

Under 5 years of age, 34—between 5 and 20 years, 8—between 20 and 40 years, 24—between 40 and 60 years, 20—above 60 years, 14. Born in the United States, 60—Ireland, 32—other places, 8.

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Original Communications.

VENTILATION OF DWELLINGS AND SICK ROOMS.

By Edward Jarvis, M.D., Dorchester. Read before the Norfolk Medical Society, January 10, 1872.

Although all mankind, from Adam to us, have, in all their lives, awake or asleep, performed the incessant process of respiration, they have not, until within a recent period, thought that they must make preparation for it. Being an involuntary function, and air being spread all abroad, they have hitherto felt no responsibility for this operation. They have built houses, shops, churches, school-rooms and theatres as impervious to air as the carpenter's skill could make them, with no suspicion that this exclusion had anything to do with health.

Within a century, men have begun to think that they suffered when gathered in great numbers in public halls, churches, theatres, &c., and have devised many means and ways of introducing fresh air, and some ways of removing the foul. By these means, the air of these rooms is greatly improved, and the health of those who lived in them, for longer or shorter periods, has been less injured. Yet this work is very far from complete; and, notwithstanding the many plans of ventilation offered, and a very large part of them with good properties and powers, the question of supplying many of these public buildings with sufficient fresh air is one of the most troublesome, and is yet answered in an unsatisfactory manner.

This difficulty is felt the most in hospitals, where the air of the wards is most corrupted, not only by the respiration, but by the exhalations from the diseased inmates. There is not only the difficulty of removing from these wards all these offensive and injurious exhalations, and supplying their place with uncorrupted air, but there is the additional danger, or the fear of danger, of disturbing the patients with drafts, and possibly of chills.

Although much has been done for public institutions in this respect, and our hospitals are ventilated, or attempted to be ventilated, with various degrees of success, yet it is rare that any attempt has been made to ventilate private dwellings, and even of those for which some means of ventilation are tried, these are generally confined to the rooms which the family occupy most of the time, the parlor, sitting-room, and perhaps the nursery. The sleeping chambers, which, generally, are occupied by smaller numbers, are seldom considered of sufficient importance to have any special provision made for their purification.

Before the invention of stoves, when every house and most rooms were heated by wood fires in open fireplaces, there was sufficient ventilation through the open chimney, especially in cold weather, when good fires were made, and a strong draft carried much of the air of the room up the chimney.

This was accidental. The removal of the foul air was no part of the plan of the architect, and more than this his plan was to exclude as completely as possible all access of fresh air from abroad. Fortunately for the health of the families, the theoretical error of the architect was defeated by the practical error of the carpenter, who, with all his skill and endeavor, rarely succeeded in making the rooms perfectly air-tight. So the air came in from abroad, through the undesigned cracks of the walls and floors, and the imperfect fittings of the windows and doors. By these means, of the open chimney and the unwelcome apertures, the rooms of old houses, especially farm-houses in the country, were ventilated. And even now, in many such houses, the fireplaces of the chambers, which are occupied by the sick, are still open and serve the purpose o ventilation.

Few modern houses have such means of purification. Many of them have no chimney, except one for the furnace and another for the kitchen, which is generally warmed by the cooking-stove. The other rooms have no chimney and of course no fireplace.

Most houses are warmed by stoves. There

are chimneys running through all the rooms. In the old houses, the fireplaces are closed with brick walls, or with sheet iron or tin, to compel the draft through the stove. The new houses are built without fireplaces, and only an aperture in the chimney for the stove funnel. The stove produces some draft, for all the air needed for the combustion of wood or coal must be drawn from the room; but this is much less than the current of air that went up through the chimney with the smoke from the open fire. The economical plan of the stove is to prevent all loss of heat by the current of warmed air passing off, as was supposed, needlessly. These rooms may be ventilated by having an opening in the brick wall, or sheet iron, by which the fireplace is closed.

I occupy a house which was built early in the last century. Seven of the rooms had open fire-places, and all were formerly heated by wood fires; but now all of these are heated by coal-stoves. The fire-places are closed by brick walls, but in each of these walls there is left an aperture six inches square for ventilation, which may be closed by a valve if occasion require. Winter and summer there is a constant current from the rooms through these apertures into the chimney and upward and outward. When there is a fire burning in the stove, and the chimney heated, this current is very strong. It is sufficient to draw a handkerchief into the chimney, if laid upon the hole, and the pressure will hold a paper closely over it against the wall.

This means of ventilation is effective and successful. Going into the room, if occupied, it is easy at once to perceive whether the valve is open or closed; and if closed the air is perceptibly foul, but it is soon changed and made pure and agreeable if the valve be opened.

This method is very simple and easily adopted in any room furnished with a chimney, if there be a fire-place that is closed; and if there be merely a chimney for a stove, a hole can be cut at any desirable height from the floor. These apertures are ordinarily sufficient to carry the foul air out.

Our carpenters have not yet reached their desired perfection of skill that would enable them to make the rooms so completely air-tight that no fresh air can get in. If, however, the undesigned apertures are insufficient for this purpose, then opening a door leading into the entry is generally sufficient in the winter.

With the present conviction of the necessity of ventilation, and the present knowledge of the means, no house should be built without preparation for this purpose.

Among all the plans of ventilating there are only two that are reliably certain.

1. Force. The fan, which drives fresh air in, or by suction draws the foul air out. This implies a motive power—steam or other engine—which is used in public institutions and other large establishments, but cannot be obtained in dwellings.

2. Heat, creating an upward current in some duct leading outward through the roof. This can be applied to dwellings, as just described, by means of a heated chimney.

This can and should be modified so as to include the rooms which have no chimney as well as those which are thus supplied, by the means of ducts leading from these rooms to a chimney where there is a constant fire.

There is a row of tenements very near a large factory in Glasgow, Scotland, occupied by the families of the poor working-men. These dwellings were small, the rooms close, without ventilation. The street or lane was narrow and dirty, with plentiful filth and foul exhalations. For a long period there was constant and very abundant sickness in these families. Typhoid fever was never absent, dysentery almost constant; consumption and rheumatism were very frequent. The women were pale and haggard, the children feeble and sickly, and the men were not vigorous. The air was very foul and oppressive. Neil Arnott, or some other practical philosopher, suggested that tin tubes be made and applied to all these houses, and lead from them into the chimney of the factory, which was 200 feet or more high and constantly heated, and through which was a powerful draft. The plan was adopted, and the rooms were ventilated; the air in all became sweet. Sickness at once diminished and soon disappeared. The houses became healthy, and the people in them became as strong as in other dwellings.

Two other instances nearer home of the application of this principle now occur to me. At a house in Cohasset, the privy at the end of the shed was troublesome from its emanations from the closed vault into the room above and the shed. The owner connected this vault by a tin tube laid under the floor of the shed with the kitchen chimney, which was thirty or more feet distant. The constant heat and upward current of the chimney caused a draft from the vault and carried off the gases, and both the privy and shed thereafter were free from all offensive odor. The other example was similar in its original evil, the means of relief and purity afterwards.

This principle, or connection with a constantly heated chimney, can and should be applied to all the rooms of every dwelling.

In building a house with a single chimney for a furnace and the kitchen, it is well to have a special and separate duct for ventilation by the side of the smoke duct and have the foul-air pipes lead into this. The heat of the smoke from the furnace and kitchen will warm the contiguous surrounding duct and create an upward current therein. The better way, when there is a single duct, as from a furnace, is to make this large, 12 or 15 inches in diameter, round and smooth inside, for the ventilation; then to put a cast iron smoke-pipe, 8 inches in diameter, through the middle of this larger duct, from the furnace to the outer air. This makes an excellent smoke duct, and thoroughly heats the foul air in the ventilating tube.

In this, and all plans of ventilation by this means, it is well to provide for the season when there is no fire in the furnace. This is easily done by having a large argand or kerosene lamp, or gas burner in the ventilating duct, and an aperture, closed with a door, through which it may be lighted. The heat of the lamp or gas is sufficient to warm the air of the duct, and create an upward current.

Two members of this Society have built houses recently, with especial eye to ventilation. All the rooms are connected with a ventilating shaft or duct, and are all pure and healthy. Their example is commended to all who wish to build healthful dwellings for their families.

Our greatest difficulty is with the air of the sick room; this is increased by the very common fear that the patient will suffer from cold and drafts. Hence not only are these rooms deprived of all known means of ventilation, but every method that the minds and well-intended kindness of the family can devise is used to prevent the possible access of air.

I was witness of an instance of this extreme but, perhaps, undue tenderness, in my early practice. I was called to see the daughter of a wealthy farmer, in winter, when the ground was covered with snow. She had pulmonary hæmorrhage. The family were consumptive. The room was warmed, even heated. The blinds were shut, the windows were closed, paper was pasted over all the junctures of the sashes with the casements. Paper curtains covered them, and then blankets were hung over each. The door was listed, and blankets hung before it; and another blanket was suspended on a clothes-horse before the door, so that no possible current of air through the door could reach the patient when any one came in. The patient was on a feather bed, well covered with blankets.

I at once requested that all the blankets should be taken away from the windows, the paper curtains removed, and the blinds opened. The family reluctantly consented; but the patient said she enjoyed the light, and suffered no discomfort from the removal of the curtains. The temperature of the chamber was reduced to 70°, and the patient breathed more easily. In a few days, I proposed that she should ride abroad in a sleigh. With more misgivings than before, the family concurred. As she was well protected by clothing, blankets and buffalo robes, she suffered nothing from the exposure, but said she felt stronger. She continued this riding abroad almost daily, and, in a few months, regained her usual health. She afterwards married, and took excellent care of her family. She died thirty years later, of some other than pulmonary disease.

A CASE OF CRIMINAL ABORTION, FOLLOWED BY PELVIC ABSCESS. PUS DISCHARGED BY THE RECTUM. RECOVERY.

By Geo. W. Gay, M.D., Boston.

Mrs. H., aged 28 years, summoned me April 9th, 1869. She reported herself as having enjoyed vigorous health until her present illness. She dated her last menstruation in December, 1868. I found her threatened with abortion. It appeared that, desiring no children, she had applied, thirteen days previously, to an abortionist who had used some instrument to terminate her pregnancy. This operation not being successful, it was repeated after a week.

Three days before my visit, she was attacked with pain in the back. There had been no hæmorrhage until that day (April 9th), and it was, at that time, only moderate in amount. Pulse, 120; chills and fever, nausea and vomiting; pains recurring at intervals of five minutes. Os dilated to three-quarters of an inch in diameter, the membranes still entire. The motions of the fœtus were active.

The vagina was plugged with colpeurynter, and one-fourth of a grain of sulph.

morphia prescribed, with absolute rest in bed.

The following day there was no hæmorrhage after removal of tampon, except when the patient got up. The symptoms in general were unchanged, and the opiate was continued.

On the fourth day, there was a chill, with constant pain in the back. The os was dilated to an inch, and the membranes protruded. The tampon was reapplied, and half a drachm of fluid extract of ergot given every three hours.

From this time, no essential change in the symptoms occurred until the seventh day. Moderate hæmorrhage continued, which was combatted with the plug and with ergot. There was pretty constant pain in the back and abdomen, and occasionally a chill. On the seventh day, the membranes protruding, they were ruptured, and a four months fœtus removed. The placenta was adherent, and hæmorrhage followed in moderate amount. The tampon was replaced and the ergot continued. The day following, the placenta was removed with a little difficulty.

Six days later, the patient having been comfortable in the interval, there supervened severe abdominal pain with anorexia, thirst and foul tóngue. The abdomen was tender. The lochia continued normal. In forty-eight hours the pain extended through the left side and down the thigh, and was attended with nausea and vomiting. A diarrhœa, with green dejections, now followed, and was coincident with a subsidence of the symptoms. After an interval of three days, however, the pain and tenderness of the abdomen recurred; on this occasion located in the left inguinal region. Vaginal examination found the uterus fixed, without displacement; the *os tincæ* admitted the sound, without pain, a distance of three and a half inches. Examination by the rectum discovered a firm and tender induration filling the pelvis, occupying the cavity on both sides and behind the uterus. Opiates and fomentations were administered *pro re nata*. Next day, there was tympanites, with increased tenderness. Dr. Buckingham saw the patient in consultation, and advised a vaginal injection of carbolic acid in glycerine and water, the discharge having become fœtid. Treatment otherwise to be continued.

Two days later, the patient had six dejections in twenty-four hours, the stools consisting of one or two ounces of thick, creamy pus, with very little fæcal matter. These purulent dejections continued in variable amount for seventeen days, and were coincident with a marked improvement in all the symptoms.

An exacerbation of the former distress now followed, with a renewal of the inguinal induration, the abdominal pain and tenderness, the fever and the general disturbance. On vaginal examination, the pelvic tumor was found recurrent. At the same time, the catamenia reappeared, forty-four days after the birth of the child. The bowels were constipated, but were freely relieved by ol. ricini, and much of the pelvic distress subsided, not, however, with any marked change in the physical signs.

June 14.—Forty-four days after the first appearance of the pelvic inflammation, Dr. Cheever saw the patient in consultation. At that time, there was marked tenderness over the uterus, with quite severe pain. A thorough examination was made under ether, and a large indurated mass was found filling the space behind and on both sides of the uterus and upper section of the vagina. No point of softening or fluctuation was determined. Full diet, tonics and opiates were continued as before.

June 23.—The catamenia recurred, relieving the pelvic pain. The bowels continued to discharge pus with the dejections.

From this date forward, convalescence progressed. The purulent discharges subsided, the pain receded, the induration around the uterus gradually diminished, and the general condition improved proportionally. August 7th, the patient sat up for the first time in seventeen weeks.

At the present writing, the patient reports herself in perfect health, with no troubles attributable to her peri-uterine inflammation.

Reports of Medical Societies.

SUFFOLK DISTRICT MEDICAL SOCIETY. REPORTED BY J. H. MC'COLLOM, M.D., BOSTON.

The Society met Jan. 27th, Dr. Wheeler, of Chelsea, in the chair.

Pyelitis, with Cancer of the Kidney.—Dr. Sinclair reported the case and exhibited the diseased kidney.

The patient, a woman about 60 years of age, had complained of symptoms referable to the kidneys for a long time. When seen by Dr. S., a tumor, painful on pressure, was detected in the left side, extending upward into the region of the spleen and laterally to the umbilicus. Pus was found in the urine at various times. There was considerable salivation and some nausea. Two days previous to death, while the patient was on the night chair, she felt something give way, as she expressed it, and immediately symptoms of exhaustion became apparent, from which she did not rally.

At the autopsy, which was made by Dr. Webber, the body was of a decidedly jaundiced hue. On opening the abdomen, a considerable quantity of pus was found in its cavity, and the surface of the intestines and other organs were coated with lymph. The left side of the peritoneal cavity was nearly filled by a tumor, adherent to the intestines, across which ran the descending colon. At the lower and outer edge of this tumor was a small rupture, through which pus escaped. The tumor proved to be an enlarged kidney, which had changed into a mass of cysts, between which the tissue had become cancerous. The ureter was adherent to the diseased mass, and near its upper end the cancer had eaten through its walls and appeared on the inside. Bladder healthy. The liver contained one large and several small scattered nodules of cancer. The right kidney had undergone fatty degeneration to a considerable extent.

Dr. Haskins called attention to nausea and vomiting as prominent symptoms in pyelitis.

Dr. Jackson reported a case in which the pelvis and infundibula of the kidney were coated with opaque lymph, and in which two calculi which were found were probably the cause of the disease. Dr. J. remarked that in dilatation of the pelvis of the kidney by fluid it is very rarely the case that inflammation of the lining membrane ensues. He also stated that in these cases suppuration of the substance of the kidney is seldom if ever seen. He also called the attention of the Society to a case which occurred at the Massachusetts General Hospital some years ago, in which the disease was overlooked on account of the severity of the symptoms referable to the bladder.

Pyelitis.—Dr. Wheeler reported a case of pyelitis, and exhibited the specimen. The outlines of the case are as follows.

A woman, 39 years of age, had been an invalid for eight years. For the last two years she had suffered from some uterine trouble, and had also complained of some of the symptoms of disease of the bladder. Pus had been detected in the urine during this time at various intervals. In July, a tumor was noticed in the left lumbar region, and at the same time pain in the left side extending down the leg and following the course of the crural nerve. In September the patient had an attack of hectic, and as she was gradually failing it was decided to puncture the tumor, which had now attained the size of a cocoanut. A trocar was passed into the posterior aspect of the tumor near the spinous processes of the vertebræ, and nearly a pint of pus was evacuated. Considerable relief followed the operation, and the pus disappeared from the urine. The canula was worn about four weeks, during which there was an almost constant discharge of pus, which, however, suddenly stopped at the expiration of this time. The patient was advised to submit to a second operation, but refused to give her consent.

In this case, as in the one reported by Dr. Sinclair, the patient felt something give way while she was being moved, and immediately became collapsed, from which condition she did not rally. The autopsy was performed twenty-four hours after death. There was a considerable quantity of fat in the walls of the abdomen. No evidences of disease were found in the heart, lungs or liver. A large cyst was found in the right kidney. The pelvis of the left was much dilated and the substance of the kidney disorganized.

Case of Impalement.—Dr. Jackson reported a remarkable case of impalement which occurred in the practice of Dr. Jos. Sargent, of Worcester. [Published in the Journal for Feb. 22d.]

Hæmatemesis.—Dr. Jackson reported a case which had recently occurred in the practice of Dr. G. S. Jones. The patient was a policeman, and attributed his disease to injuries he had received at different times in the performance of his duties. About two years ago he had copious hæmatemesis, and again last spring. During the last few weeks it had occurred quite a number of times, very copiously. Some yellowness of the skin was noticed, as is often the case in cirrhosis. The spleen, which was exhibited, was much enlarged. The stomach contained a large quantity of blood, but there was no ulceration of the organ. There was extensive cadaveric softening of the left extremity, however, so that the blood gushed out into the peritoneal cavity when the organ was raised. Dr. J. referred to a distinguished merchant of this city, who died many years ago from copious hæmatemesis, the result of cirrhosis; but he did not think the disease so frequent here as it seems to be in some places. He also referred to the usual and probably correct explanation of ascites and hæmorrhage from the stomach in cases of cirrhosis, and spoke of the importance of examining for enlargement of the spleen after tapping for ascites in suspected cases of cirrhosis.

Bibliographical Notices.

De Operatie der Senile Cataract. Academisch Proefschrift, door C. H. A. Westhoff. Utrecht. 1871.

The Operation for Senile Cataract. Academic Thesis by C. H. A. Westhoff. Utrecht. 1871.

The progress of ophthalmology is occasionally signalled at the school of Utrecht by a thesis from one of its younger disciples. Thus, in past years, Gutteling gave the description and results of Snellen's new operation for Entropium,[*] Haffmanns the theory of Donders on the subject of Glaucoma,[†] De Wilde the treatment of Iritis and Iritochoroiditis,[‡] and Westhoff the present pamphlet. It furnishes an account of the modern operation for cataract, which, since 1866, has taken the place of the old flap method at Utrecht, details the after-treatment there in vogue, and closes with a full table of results.

It opens with a definition of cataract, giving some of the views formerly entertained as to its nature, and the more modern ones of Förster concerning its pathological anatomy, discusses the different forms of senile cataract, and alludes to some of the methods of external treatment once in vogue, especially galvanism and phosphoretted oil. The different operations are next referred to, and it is interesting to learn that reclination has never yet been performed at the Utrecht Hospital. There is a good *résumé* of the modifications of the flap operation, and of the experiments with scoops that preceded the introduction of the peripheric linear. Allusion is made to the discussion between Graefe and Hasner, as to the relative merits of linear and flap extraction, and to the interest with which it was followed by the whole ophthalmic world. In consequence—

"With the exception of Hasner, all ophthalmologists have profited by the valuable labors of Graefe, and cataract is now hardly operated on, save by his method."

The operation, as performed at Utrecht, differs in no essential particular from that done by Graefe himself, the operator following his example in standing behind the patient when the cataract is on the right side, and sitting in front when it is on the left. Should the wound prove too small, it is advised to use the curved knife of Taylor for the purpose of enlarging it.

Great stress is laid on the reposition of the cut edges of the iris, after the iridectomy has been performed, a prolapse of the iris being recognized as giving rise to irregular curvature of the cornea and secondary glaucoma, besides dragging the pupil upwards.

If, in opening the capsule of a very hard cataract, the action of the cystitome has dislocated the lens upwards, the same instrument should be used to effect its reposition. It is advised that the operator use convex glasses at this stage, in order to the better appreciate any slight movement of the crystalline.

We regret to see so little stress laid on the principle of following up the lens, step by step, from the lower edge of the cornea, till the last particle has emerged, thus avoiding the leaving behind fragments of cortical substance. The proper removal of the lens is one of the most important steps of the operation, and its possible complications should be dilated on at length.

The after-treatment differs somewhat from that practised at Berlin. The compressive bandage is not changed for twenty-four hours, and atropine is then instilled, instead of waiting three days as Graefe advised. After six days the bandage is discontinued.

Owing to the variation in the astigmatism the first few months after the operation, it is advised not to finally determine the glasses to be used until three months have elapsed.

Dr. Snellen's treatment of threatened suppuration in the wound differs materially from that counselled by Graefe. He discards calomel and blood-letting, gives quinine and wine internally, uses the constrictive bandage, and orders open air exercise.

"If the least signs of suppuration in the wound are perceptible, though it be the first day after the operation, the patient is to leave his bed and walk in the garden. Exercise and fatigue accelerate the circulation and absorption; through them we have seen extremely critical cases end in entire recovery."

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[*] De Behandeling van de Binnenwaartskeering der Oogleden. C. Gutteling. Utrecht. 1860.

[†] Bijdrage tot de Kennis van het Glaucoma. J. H. A. Haffmanns. Utrecht. 1861.

[‡] Eenige Gevallen van Iritis en Iritochoroiditis. A. J. P. De Wilde. Utrecht. 1861.

The thesis closes as follows:—

"The results of our experience justify the statement that the operation here followed offers advantages beyond all previous methods. It affords greater security against loss of the eye than flap-extraction, but is decidedly more difficult and requires a larger experience. As a feat of surgical dexterity, it is less striking than the flap. The iridectomy, which destroys the roundness of the pupil, is no special disadvantage. If no glass is used, a round pupil is a stenopaic apparatus of indisputable value, but the advantageous employment of the corrective lens is in no wise hindered by the artificial pupil made upwards.

"Linear extraction with a lance knife is more easy, and recovery from it is more rapid; it is to be advised in cases specially adapted to it. The method just described is to be limited, in our opinion, to the extraction of hard senile cataract, for which it possesses advantages above all others. Its invention is one of the many invaluable services of Albrecht von Graefe, in the field of clinical ophthalmology."

There follow the statistics of the cataract operations done according to this method at the Netherland Ophthalmic Hospital, between the years 1866 and 1871. Cases occurring in private practice are excluded. In stating the vision, the precise fraction is in each case given, *i. e.* the size of type seen and the distance in which it is distinguished, no reduction of the fraction to lowest terms being made.

There were in all 209 cases, 81 males and 128 females. Five failures occurred. In 26 cases, a secondary operation was necessary. All but 16 of the whole number of patients were operated on by Dr. Snellen. Loss of vitreous occurred forty-three times, but it is worthy of remark that the slightest escape of this humor is carefully noted. All the earlier operations are included in the list.

Condensed Table of Results.

Vision exceeding $\frac{1}{5}$	106
" less than $\frac{1}{5}$, but exceeding $\frac{1}{6}$	15
" " $\frac{1}{6}$ " " $\frac{1}{30}$	52
" less than $\frac{1}{30}$	20
Perception of light	3
Unrecorded*	8
Lost	5
	209

Hasket Derby.

A Handbook of Therapeutics. By Sydney Ringer, M.D. Second Edition. New York: Wm. Wood & Co. 1871. Pp. 483.

We do not think that we should give this book into the hands of those for whom it is said by the author to be specially intended, viz., "students and young practitioners," but rather those to whom experience has supplied the *granum salis* with which very confident statements as to the wonderful curative effects of many drugs should be taken.

With this grain of salt, however, this little book is to the practitioner a very useful and suggestive one. The views held are clearly and definitely stated, and the practical points brought out with great distinctness. Whether we agree with the author or not, the effect of a definite statement of what he thinks can and what cannot be done, is very satisfactory, and such statements characterize this work much more than the usual treatises on therapeutics. The present treatise has been revised and enlarged, and its American dress is a very neat one. E.

Lectures on the Clinical Uses of Electricity, delivered in University College Hospital. By J. Russell Reynolds, M.D., F.R.S., &c. Philadelphia: Lindsay and Blakiston. 1872. Pp. 112.

These lectures, which were delivered during the summer of 1870, in University College Hospital, are very plain and practical. The author, as he states in the introduction, has avoided all debatable points, and has confined himself to ascertained facts in regard to the clinical uses of electricity in the diagnosis and treatment of disease.

The writer is evidently well acquainted with the subject, and while he does not exalt the position of electricity too highly, he tells us clearly and distinctly what we may expect from this agent in the treatment of disease.

Dr. Reynolds does not believe in long sittings or in the use of powerful batteries, and he says that if more attention were paid to these points we should have better results from the use of electricity. The cautions he gives in regard to the quantity to be used in certain cases are very good, and deserve the careful consideration of those who use this agent. The section on the use of electricity as an aid in diagnosis is very plain and direct, and it contains several facts which are not clearly stated by other writers on this subject. It is agreeable to read a work on electricity from which one can obtain so much information in so short a time as from this. On the whole, this is the best hand-book on this subject with which we are acquainted, and it is well calculated to meet the wants of the general practitioner. The book is neatly bound and the type is good. J.

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* Four of these are known to have had good vision. In two others the operation succeeded, but degeneration in the region of the macula lutea was discovered.

The Detection of Criminal Abortion, and a Study of Fœticidal Drugs. By Ely Van De Warker, M.D. Boston: James Campbell. 1872. Pp. 88.

This monograph, or at least the greater portion of it, was originally published, as a serial, in the Journal of the Gynæcological Society of Boston. It contains many facts which, while they may not be of any very great practical value to the profession at large, will yet attract and interest those members of it who are engaged in the study of Medical Jurisprudence.

Consumption: its Pathology and Treatment. To which is appended an Essay on the Use of Alcohol in the Treatment of Consumption. By Wade Miner Logan, M.D. Philadelphia: 1871. Pp. 90.

The author offers his work to the profession in order to present the results of observations made, and conclusions arrived at, in regard to the Pathology and Treatment of Tubercular Consumption, with respect to the remedial effects of nitric acid. Carpenter's Prize Essay on Alcoholic Liquors furnishes Dr. Logan material for the closing twenty pages of this volume.

Starting with the assumption that the phosphates hold the same relation to tubercle that iron does to hæmatine, he infers that the introduction of phosphates into the system, would increase the tubercular deposit. Some of the arguments in favor of this theory are, that the urine of tuberculous subjects contains an excess of phosphates; that in laryngeal phthisis, the cartilages of the larynx frequently undergo ossification; that in rickets, where there is a deficiency of phosphates, the person subject to this disease rarely becomes tuberculous. He considers that gray tubercle is transformed into yellow by acting as a foreign body, and thus giving rise to inflammation and subsequent exudation; the fluid portions of the latter being absorbed, the solid elements adhere to the gray tubercle, hence the yellow variety.

The softening of tubercle is purely suppurative. Fibrine is the basis for constructive and reparative process. We hope the author has been able to demonstrate the presence of this substance in inflammation of the brain, or in those alterations giving rise to the connective tissue formation in the granular liver and kidney.

Granted that the urine of tuberculous subjects does contain an excess of phosphates; the same thing occurs in wasting diseases from other causes, in diseases, too, where tubercles have never been found.

One of the most marked instances of ossification of the laryngeal cartilages we have ever seen, occurred in a patient who had epithelioma of the larynx, no where tubercle.

That rickety individuals rarely become tuberculous may be true, not because they are rickety necessarily. At an autopsy of such a person, we saw innumerable bronchopneumonic nodules, many of which had softened.

If our author should give a few weeks of individual study to the genesis of tubercle, and its subsequent history, he would not be so ready to accept its origin from an exudation, to attribute its yellow appearance to the adhesion of inspissated solid elements of inflammatory exudation, and its softening to suppuration.

It being asserted that nitric acid is efficacious in "whooping cough, chronic bronchitis and the hoarseness of singers," it is thus shown "that it exerts a peculiar soothing influence on the irritable state of the lungs, probably in the same manner that chlorate of potash thus acts on the irritable condition of the larynx, or through some such peculiar agency."

Forcible argumentation and clear logic. Disputed facts (?), a common cause attributed to different diseases and the use of the familiar adage, "it is a poor rule," &c. A table of 24 cases is presented to illustrate the author's theory. "These cases were treated with nitric and muriatic acids, aided by various auxiliaries, as counter-irritants, narcotics, expectorants, cod-liver oil where it was tolerated, &c." In this table are found 3 deaths, 10 recoveries, 7 favorable, 1 improved and 3 improving cases.

In the first case of recovery there was no cough during the illness, except during partial pleuritic attacks; dulness and abnormal respiratory sounds entirely disappeared—"proof positive of the anti-phosphatic virtues of my treatment."

Case 4 (of recovery); "at time of dismission * * * there was still evidence of lesion in right lung."

It is unnecessary to make further criticism of the remaining cases. The powers of observation and the judgment of the author have been already sufficiently shown.

Chapter IV., concerning alcohol, leads the author to decide that "except in cases of extreme exhaustion, alcohol is not under any circumstances the consumptive's friend, but, indeed, is his meretricious and stealthy assassin."

Foreign Correspondence.

SYPHILIS-CORPUSCLES.

VIENNA, Feb. 9, 1872.

MESSRS. EDITORS,—Every chair and every square inch of standing room were filled this evening at the meeting of the "Gesellschaft der Aertze," because of the advertised review of Dr. Lostorfer's discovery by Prof. Wedl. Prof. Hebra in the chair.

Prof. Wedl, having first recounted the results of the examinations of Dr. Lostorfer, and the steps by which they were said to have been reached, stated that he had pursued the same method in his researches, but had failed to discover any corpuscles in the blood of syphilitics which were not to be found equally in the blood of healthy individuals. He had easily found bodies, similar to those described by Dr. L. as peculiar to syphilitic blood, in almost every specimen of blood examined, both healthy and diseased. They were round, shining bodies, of less size than the blood corpuscles, and having a slightly bluish-green shimmer. Prof. Gruber (aurist) and Docent Dr. Neumann (dermatologist) saw these specimens, and pronounced them to be precisely similar to the bodies which they had seen in Dr. L.'s preparations. Prof. Wedl had then made a preparation of mistura oleosa, in which the fat drops were finely broken up, and in which, on comparison with the so-called syphilis-corpuscles, the small fat drops could not be distinguished from the corpuscles. This applied only to the perfectly symmetrical round bodies. Besides these, bodies had been described of various forms and in many cases supplied with one or more sprouts; these the Professor asserted to be "torn-off pieces of protoplasm." The formation of vacuoles was nothing more than a process of decomposition, in which carbonate of ammonia was formed, and which could be demonstrated any day by adding an alkali to fat, and watching their development in the fat. As to the supposed growth of the corpuscles, this the Professor asserted had not been proved, because Dr. L. had not shown that he had followed one and the same through its various stages of development; moreover, that he himself had watched these same bodies for several weeks, and failed to note the slightest increase in size. In order to remove the blood corpuscles, which had obscured the bodies in dispute, a stream of distilled water had been passed over the slide, and by this means the corpuscles left alone under the microscope. In conclusion, he suggested that the fat had been introduced into the specimen by accident, as, for instance, in pricking the finger to obtain a drop of blood, a few drops of fat might be easily squeezed from out the sebaceous follicles of the skin, and be brought upon the slide with the blood.

Prof. Stricker then rose to combat the scepticism of Prof. Wedl, with a reiteration of the extreme caution used in the tests to which Dr. L. had been subjected, and denied that the Professor could have seen the corpuscles in question; adding further, that he himself had examined them many hundred times, and while unable to judge of their true nature, was convinced that they were neither molecules of fat nor protoplasmic bodies. Dr. Lostorfer inferred, that if, as asserted by Prof. Wedl, the bodies had been observed on the first day after the blood was drawn, they could not have been those described by him, which never had appeared within the first twenty-four hours. He further concluded, that if water had been added to the preparations, his corpuscles must have been destroyed, because he had proved them to be shrivelled up on the admixture of water, especially in the earlier stages of their existence.

Prof. Stricker thought it likely that Prof. Wedl, by his stream of water, had at all events washed away the corpuscles together with the blood corpuscles, and had probably by its medium brought many new microscopic objects into the field.

Prof. Wedl replied that the "wet chamber" in which the slides were placed would in any case admit water to the preparation by the well-known principle of the diffusion of fluids, and that the streams thereby produced would effect the same as his method of washing the blood. He also thought that after twenty-four hours the blood corpuscles would have lost their color and might be taken for strange bodies.

Dr. Neumann recounted some of Hallier's discoveries of spores indicative of various diseases, and his own experiments with the specimens supplied him by Hallier. The foreign and diagnostic bodies he had fully proved to be nothing but decomposed blood corpuscles. He had recently subjected syphilitic blood to constant observation for ten hours a day, and had invariably found the same appearances as in his previous researches.

Dr. Geber, the newly appointed 1st assistant of Hebra, had, at the request of the latter, examined a large number of patients in the smallpox wards, and found, with the absence of syphilitic symptoms, many of these corpuscles, in part precisely similar to those shown him by Lostorfer, and in part of a somewhat more bluish-green tint. Moreover, in a dead subject he had found them in great quantities.

Prof. Gruber testified to the exact resemblance of Prof. Wedl's specimens to those of Dr. Lostorfer.

It was finally decided that the matter of testing the possibility of a diagnosis of syphilis by means of these corpuscles should be referred to a committee, and the chair appointed the following members of the Society, omitting, in accordance with the wishes of those present, all who had taken any part in the discussion of the evening:—Prof. Rokitansky (chairman), Profs. Brücke, Billroth, Reichert, Klob, Drs. Auspitz and Basche. To these was added the name of Prof. Karsten, after much excitement and opposition on the part of some present.

The report of this committee I will send you as soon as published, and in the mean time thought that an account of the ground taken by the opposing parties would not be devoid of interest to your readers.

I am very truly yours,

James R. Chadwick, M.D.

Selected Papers.

ON CERTAIN HUMAN PARASITIC FUNGI, AND THEIR RELATION TO DISEASE.

By Joseph G. Richardson, M.D., Lecturer on Pathological Anatomy in the University of Penn., &c.

A knowledge that there do actually exist such unquestionable parasitic diseases as the potato-rot in the vegetable kingdom, and the muscardine of silk-worms in the animal, has for many years led reflecting minds in the medical profession to reinvestigate, from time to time, ancient stocks of information, and to search after new facts in the relation of the lower to the higher organisms, of which we ourselves form so important an integral part, in order to discover whether analogues of the disorders named above are also to be found among the maladies to which humanity is subject.

Nor have these researches been by any means unfruitful; for although the observations of Hallier on cholera and typhoid fever, Salisbury on ague and smallpox, &c., are doubted or even ridiculed by a majority of the pathologists and microscopists in this country and Europe, on the other hand the experiments and deductions of Schoenlein, Gruby, Bennett and Tilbury Fox, in regard to favus and the whole group of parasitic cutaneous affections, are now fully accepted by most scientific physicians, and are contested by so small a number of medical men that, although this scanty minority is headed by the famous authority in dermatology, Erasmus Wilson, our doctrine of the existence of dermatophytic disorders in the human race may be considered to-day fairly established. * * *

Dr. R. Cresson Stiles reports in the *N. Y. Medical Record*, vol. ii. p. 340 (1868), some interesting examples of tinea observed in mice, from which the disease could readily infect cats and through them our own species, as probably took place in a case of ringworm occurring some years since in my own practice.

But if, as is now generally conceded, fungous growths similar to that I have just shown you do flourish and produce disease whilst ramifying through and between the epithelial cells of the skin and of the mucous membranes, as in aphthæ, what valid reasons can be *a priori* urged against a belief that they may also develop among the cellular elements of the connective and muscular tissues; or even, if we adopt Prof. Virchow's definition that the blood is "a tissue of cells with a liquid intercellular substance," why may they not live and grow more or less luxuriantly in the liquor sanguinis, especially as it slowly permeates the capillaries and smaller veins?

That such is actually the case, I think we have a large amount of evidence to prove: and one of my objects in the present paper is to lay before you some of the accumulated testimony upon this point, leaving, with one exception, any deduction from the fact—if fact it is accepted to be—for future consideration. * * * * *

That some of the minute particles constantly found in normal human blood and partly constituting the globulins of Donné, the molecular substance of Griffith and

Henfry, the microzymes of Dr. Burdon Sanderson and sundry French authors, and the germinal matter of Beale—at least in his earlier writings—present the aspect of fungous spores, and develop into Bacteria-like bodies, is shown by the following experiment, which I have repeated a sufficient number of times to convince myself that I have not been misled by any false interpretations of the appearances presented.

A drop of blood from the finger, drawn with careful precautions against adulteration, was covered with a large thin glass in such a manner as to include a few bubbles of air, and the whole hermetically sealed by a layer of gold-size applied at the margin of the covering glass. A suitable field of view being selected, containing between the *rouleaux* of red corpuscles several large open spaces, in which could be seen with a $\frac{1}{25}$-inch objective sundry of the tiny particles above referred to, each in active movement—perhaps molecular in its character—the slide was firmly secured in position, and careful observations and drawings were made at short intervals, except through the night, for three days, at the end of which period the minute granules first seen had developed to three times their original size, becoming about $\frac{1}{10000}$ of an inch long, assuming an elongated dumb-bell shape, and increasing in number so that the place of a primary particle would often be occupied by six, eight or ten Bacteria-like bodies, sometimes irregularly grouped together, but quite frequently assuming the branching arrangement so characteristic of the jointed mycelia of the lower vegetable organisms.

A series of my own experiments performed to demonstrate the presence, mode of entrance, and pathological effects of Bacteria in human blood, were detailed in the *American Journal of the Medical Sciences* for July, 1868, from which I extract the following as the most important:—

"Experiment 4.—At 7.45, P.M., May 17, 1868, I drank four fluidounces of water similar to that employed in the preceding investigations, and containing multitudes of bacteria (estimated as numbering 27,000,000,000). At a quarter past eight, I examined a drop of blood drawn with a cataract-needle from the tip of my finger, and confined between a slide and cover cleaned with strong hydrochloric acid as above described. Under the field of the one-twenty-fifth-inch glass the interspaces between the rows of blood-corpuscles were found to contain multitudes of apparently spherical molecules, in rapid and erratic motion—but so very minute as to readily escape notice, even with this high power, except under the closest scrutiny; in the course of half an hour, not less than one hundred were observed. At 9, P.M., another drop of blood, examined with the same precautions, exhibited, in addition to these minute particles, other bodies, less active in their movements, of much greater magnitude, and which under an amplification of eleven hundred diameters appeared precisely similar to the bacteria I had been studying a few hours before in the identical decomposing beef-juice imbibed.* Five of them were thus enlarged sufficiently to exhibit an unmistakable organized structure totally different from their associated aggregations of Beale's germinal matter. Three of these bacteria were each about $\frac{1}{12000}$ of an inch in length and $\frac{1}{25000}$ of an inch in width, very distinctly constricted in the middle; a fourth was obviously composed of four, and a fifth of six joints arranged in a straight line, whose motion was of that peculiar waving character so universal among the oscillatoriaceæ. The last two were most clearly visible when they happened to lie vertically to the surface of the glass, and would probably escape observation under the one-eighth-inch except in that position, or be therefore mistaken for simple globular bodies, although in several cases I detected in the second and third experiments (with a lower power) a shadowy elongation of one diameter on the revolving molecules thus observed." * * *

Influenced, therefore, by the positive statements of Drs. Lionel S. Beale and H. C. Wood, Jr., and the direct observations of M. Davaine, Dr. Neftel, and M. E. Semmer, as well as by the results of my own personal investigations, I think we must admit that bacteria not only live but flourish in the blood of animals and of man with more or less frequency during the course of various maladies; yet whether by so existing in the circulating fluid these vegetable organisms constitute causes of disease, or whether they are simply products, or, again, mere accidental accompaniments of morbid action, it appears to me we have not hitherto accumulated a sufficient number of *facts* to enable us to decide.

In order, however, that such researches as those above referred to may be made, even in their present incomplete state, to aid us in improving the science of medicine, permit me to suggest that each bacterium existing in the blood (whether as a poisonous cause, a product, or an accident of disease, I refrain from discussing at present) must during every moment of its life appropriate some minute portion of pabulum, which would otherwise have contributed to nourish the tissues of the animal in which it resides; and that therefore the sum total of the bacterian influence (unless they feed solely upon effete matters, unlike their analogues of the dermatophytic affections) *must* be effective towards diminishing the vital power of the organism on whose life-blood they prey. * * * * * *

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* Careful and repeated observations had of course been made to establish the fact that similar particles were not visible in my blood immediately before drinking the bacteria.

Upon this doctrine it is not difficult to found a theory for explaining the probable mode of operation of quinine and arsenic—so long a problem in therapeutics—when acting as tonics upon the human system in many cases of disease: namely, that in part, at least, they serve their important purpose by rendering the blood less fit for the development of these lower organisms, and in this way *economizing* the supply of nutritive material in the circulating fluid. Many well-known peculiarities in the action of these two principal tonic medicines tend to confirm such a belief—as, for example, the facts: *first,* that quinine and arsenic, two substances which, although unlike in almost every other respect, resemble each other, as shown by the experiments of Dr. Binz, of Bonn, and Dr. Dougall, of Glasgow, in being powerfully inimical to vegetable life, are in many cases our most reliable tonics. *Second,* that, as a general rule, three or four days must elapse before a decided invigorating effect is produced upon the system by these remedies—a period which, we may conclude, is requisite for sufficiently impregnating the blood (without disturbing the digestive organs) to render it an unfavorable medium for the growth of bacteria. *Third,* that after a continuance of some weeks these roborants generally lose their invigorating power upon any particular patient, but seem to have regained it if recommenced after their administration has been for a short time interrupted—*i. e.* subsequent to the development of a new crop of bacteria, which they again destroy. And *fourth,* that arsenious acid has so remarkable an effect upon the arsenic-eaters of Styria, producing such fat, vigorous, and pure-complexioned individuals when steadily continued, and giving rise to such intense suffering if omitted for a short time; results which can hardly be owing to the arsenical preparation supplying any necessary constituent of the human body, and which seem much more probably to be due to some action in preventing a waste of nutriment, and consequently of vital power.—*Phil. Med. Times.*

At Dr. Richardson's request, we append the following note to the abstract made from his pamphlet:—

Dr. Lionel S. Beale, in his "Disease Germs and their supposed Nature," p. 77, remarks that vegetable parasites found associated with various diseases seem only or chiefly able to develop in structures already decaying, and "if this be so the fungi cannot be regarded as the *cause* of the disease any more than the vultures which devour the carcase of a dead man can be looked upon as the cause of his death." Accepting this excellent comparison, I would illustrate the scope of my paper by extending the analogy and suggesting to the anti-phytopathologists, that if a lonely sick man is assailed by vultures when so enfeebled from any disease or accident that he cannot resist their attacks, he will quickly die, torn to pieces by their cruel beaks, even although his malady is not mortal in itself and requires only time and care for its cure: further, if I, as his physician, have (knowing the habits of vultures) taken the precaution of providing him with some means to impregnate the atmosphere around with quinine or arsenic to that exact degree which, whilst but slightly injurious to his own system, is fatal to the merciless birds of prey which seek to gorge themselves upon his life blood, I thereby avert his greatest danger, and measurably improve his chances of restoration to health.

Medical and Surgical Journal.

BOSTON: THURSDAY, MARCH 7, 1872.

MEDICAL SOCIETY OF THE STATE OF NEW YORK.

THE sixty-sixth anniversary of the Medical Society of New York was holden at Albany on the 6th of February last, and the following two days. Our numerous readers in New York State will have already received information of the business transacted at the session; but certain series of resolutions which were adopted were of an important character, and will serve as precedents for medical societies in other parts of the country. We therefore quote certain passages from the *Medical Record* for February 15, without apology or comment.

On the first day of the session, Dr. Eliot presented, on behalf of Dr. Sayre, of New York, the following draft of a bill to be presented to the Legislature, to provide for the protection of physicians and surgeons in cases of alleged malpractice:

Sec. 1. Be it enacted, that in all suits that may be brought against any physician or surgeon for alleged damages in any case arising from any alleged malpractice on the part of any physician or surgeon, that the plaintiff shall, before such suit shall be commenced, give a bond in at least double the amount of the damages claimed in such suit.

Sec. 2. Such bond shall be signed and received by two good and sufficient sureties, who shall be freeholders, to be duly approved by one of the judges of the court in which such suit shall be commenced, conditioned that if the plaintiff shall not maintain such suit, or shall not recover against the defendant, that such sureties shall well and truly pay to the defendant all costs and damages that the defendant may sustain by reason of such suit, and all legitimate expenses incurred in defending the same.

Sec. 3. If, during the pendency of such suit, the said sureties, or either of them, shall become insolvent or irresponsible, the plaintiff shall immediately substitute other good and sufficient sureties, to be approved in like manner, as hereinbefore provided for.

Sec. 4. That, in case the plaintiff shall not comply with the provisions of this act, no such suit shall be maintained against any physician or surgeon for any alleged damage, in any case of alleged malpractice; and that any such suit shall be dismissed upon motion of any defendant, at any time after any process may have been served upon the defendant in any such suit; and such defendant shall be entitled to, and recover against any such plaintiff, such costs and damages as the court may award, upon such motion to dismiss any such suit.

Sec. 5. Whenever any plaintiff shall not maintain the suit, nor recover damages as hereinbefore provided, the defendant shall immediately commence a suit upon the bond hereinbefore provided to be given; and such suit shall be a lien upon the property specified in such bond, upon a notice of *lis pendens* being filed in the court in which such suit shall be commenced.

Sec. 6. This act shall take effect immediately.

The draft was adopted.

On the second day, Dr. F. B. A. Lewis offered the following resolutions, which were also adopted:—

Whereas, The Medical Faculty of Harvard University have taken a most important step toward the more thorough preparation of medical graduates, so much needed at this time, by extending the time and mode of study, and by successive and extended examinations; be it

Resolved, That this Society, desiring to encourage any means pointing to the better education of medical men, extends its congratulations to the said Faculty of Harvard University, with sincere desires of their success in this most necessary advance.

On the same day, after the reading by Dr. Squibb of an interesting report on Medical Education, the Society adopted the following resolutions:—

Resolved, by the Medical Society of the State of New York, That the County Medical Societies which constitute this Society, direct their several Boards of Censors to examine and determine the educational qualifications of such young men as propose to commence the study of medicine, and to certify to the fitness of all such as may be found qualified.

Resolved, That the Censors of this Society for the several districts be and are hereby constituted Boards of Censors for examining and certifying such qualifications for all the counties within their several districts, in addition to the Censors of the County Medical Societies.

Resolved, That any regularly organized Board of Censors, whether of the State or County Societies, be competent to conduct and certify to such examinations, for all persons who may come before them for the purposes herein specified.

Resolved, That no member of any medical organization represented in this Society, be permitted to receive a student into his office until such student presents the certificate of a Board of Censors showing his qualifications to enter upon the study of medicine.

Resolved, That the accompanying report on Medical Education, adopted by the American Medical Association, together with this report and resolution, be printed separately in the form of a circular, and be sent to the presiding officers of all the organizations represented in this Society, in sufficient numbers to supply each individual member of such organizations.

On the third day also, on motion of Dr. Roosa, the following resolutions were adopted:—

Whereas, The Code of Ethics, to which this Society and the various county societies acknowledge allegiance, provides appropriate and sufficient means for obtaining redress in all matters of difference between physicians,

Resolved, That any physician preferring charges, or against whom charges may have been preferred, who shall resort to courts of law or any legal process, shall be considered unworthy of membership in medical societies; and, if a member, shall be declared expelled by the President at a stated meeting of the Society to which the offender may belong.

Resolved, That a copy of this resolution be sent to the American Medical Association.

ANOTHER LETTER FROM DR. CHADWICK.—Our readers will take pleasure in perusing the letter from Dr. Chadwick in this week's issue of the JOURNAL, which shows that the subject of syphilis-corpuscles is being carefully considered in Vienna. The names of the committee to whom the subject has been referred is a sufficient guaranty that it will be fairly, but thoroughly treated. We have made arrangements for still farther communications on this interesting topic, which we shall lay before our readers in due season.

SYPHILIS-CORPUSCLES. *Messrs. Editors*,—The new syphilis-corpuscles *may* be real; nothing is impossible. But there is a ground of improbability in the story which I will take the liberty to suggest. The account, as we have it in the JOURNAL, states that blood from syphilitic patients, when placed on glass and kept moist, for a time shows nothing peculiar; then minute globules appear, which grow, and finally exhibit sprouts, &c. Now, why should syphilitic blood require to be removed from the body before germinating and sprouting? If blood, taken at different stages of syphilitic disease, exhibited these corpuscles in different stages of development, such a phenomenon would carry with it a more intrinsic probability. But it is easy to test the American article.

BACTERIUM.

PRACTICAL microscopists will find for sale by Joseph T. Brown & Co. in this city, a very complete stock of microscopes and microscope materials and accessories of all kinds. Mr. Markoe, a member of the firm, himself a scientific microscopist, is prepared to furnish the most reliable instruments from all the makers, including the admirable binoculars made by Beck, of London, and those from Zentmayer, of Philadelphia. He has also on hand mounting materials of all kinds, and the various implements employed by those who are in the habit of using the microscope. We have had occasion ourselves to use these materials and can vouch for their excellent character. We have been particularly pleased with a new preservative material made by Mr. Markoe, principally composed of glycerine and gelatine. It makes an admirable preservative for all inorganic and most organic specimens. Mr. Markoe has on hand a large stock of mounted specimens, including many anatomical sections, healthy and morbid representations of medical and pharmaceutical chemistry, &c., by the most eminent scientific preparers in the country.

A MEETING of the Alumni of the Cleveland Medical School was held at the College on Erie St., in that city, on Tuesday, February 20th, for the purpose of effecting a permanent organization.

The graduates of this institution number between twelve and thirteen hundred, who are now practising in different sections of the country, and the object of this organization is to draw together every year as many of these as is practicable, for the sake of keeping alive their interest in their Alma Mater, and of strengthening that bond of professional union felt by all the Alumni of this old institution. The following officers were elected for the ensuing year: *President*, J. Lang Cassels, M.D., LL.D. *Vice-President*, John Bennett, M.D. *Cor. Secretary*, Frank Wells, M.D. *Orator*, J. P. Kirtland, M.D., LL.D. *Substitute*, J. S. Newberry, M.D., LL.D. *Poet*, R. F. Work, M.D.

The meeting then adjourned until the Tuesday preceding the next College Commencement.

FRANK WELLS, M.D.,
Cor. Secretary.

XYLOL.—This hydrocarbon is likely to become of great importance, if its application in cases of smallpox is really followed by such good results as have hitherto been obtained at Berlin.

The *Berlin Klinische Wochenschrift* states that Dr. Zuelzer, Senior Physician at the Charité Hospital, had there administered xylol in cases of smallpox, with the most complete success.

It is given in doses of from three to five drops for children, ten to fifteen drops for adults, every hour to every three hours.

It is harmless, because as much as a teaspoonful at a time has been taken.

The specific action is not yet clearly defined, but early information on this point is promised. The theory at present is that xylol is taken up by the blood, and acts as a disinfectant.

The absolute purity of the xylol is important, as toluol and other analogous compounds do not possess this peculiar action, and it seems there are some practical difficulties in obtaining xylol absolutely pure.

Xylol, $C^5 H^{10}$, was first separated from coal naphtha by Dr. Hugo Müller; it is obtained by fractional distillation until a distillate is obtained of about 140° C. boiling point; this is mixed with sulphuric acid, which dissolves xylol, forming xylol-sulphuric acid; this acid is decomposed by dry distillation, and the xylol thus obtained is further purified.

Pure xylol is colorless, it has a faint odor, somewhat like benzol, boiling-point 139° C., specific gravity .866.—*London Pharm. Jour.*

ROYAL VICTIMS TO SMALLPOX.—Dr. John Gardner (*Edinburgh Medical Journal*) has collected the following history of the ravages of smallpox in some of the royal houses of Europe, hoping thus to impress the public mind more forcibly as to the advantages of vaccination:—

Among the family of Charles I., of Great Britain, of his forty-two lineal descendants up to the date of 1712, five were killed outright by smallpox; viz., his son Henry, Duke of Gloucester; and his daughter Mary, wife of the Prince of Orange, and mother of William III.; and three of the children of James II.: viz., Charles, Duke of Cambridge, in 1677; Mary, Queen of England, and wife of William III., in 1694; and the Princess Maria Louisa, in April, 1712. This does not include, of course, severe attacks, not fatal, such as those from which Queen Anne and William III. suffered. Of the immediate descendants of his contemporary, Louis XIV. of France (who himself survived a severe attack of smallpox), five also died of it in the interval between 1711 and 1774; viz., his son Louis, the Dauphin of France, in April of 1711; Louis, Duke of Burgundy, son of the preceding, and also Dauphin, and the Dauphiness, his wife, in 1712; their son, the Duc de Bretagne, and Louis XV., the great-grandson of Louis XIV. Among other royal deaths from smallpox in the same period were those of Joseph I., Emperor of Germany, in 1711; Peter II., Emperor of Russia, in 1730; Henry, Prince of Prussia, in 1767; Maximilian Joseph, Elector of Bavaria, December 30, 1777.—*New York Medical Journal.*

WEBBED-FINGERS.—At a recent meeting of the London Medical Society, Mr. William Adams showed a boy who was suffering from a webbed condition of several of his fingers. He was being treated by Mr. Tamplin's instrument. The case was in the first stage of the treatment. A hole, with its circumference cicatrized, had been made at the base of the webbed-fingers, and a pencil-case could be passed through it. Simple division, Mr. Adams remarked, gave only a slight improvement; a plastic operation gave a better result. Silver rings to make an opening had been used; but Mr. Tamplin's operation, by which a piece of skin was screwed out by means of two plates of metal, was the best. The compressed tissues soon sloughed out, and the hole was well stuffed with oiled lint. The inflammation and general swelling soon passed off. The operation had been done a month, and the edges of the opening were well cicatrized. The remainder of the web would be treated in the usual way by division with the knife.—*British Med. Jour.*

MAINE MEDICAL SCHOOL.—The medical term in Bowdoin College commenced on the 18th ult., the opening lecture being delivered by Alfred Mitchell, M.D., lecturer on pathology and therapeutics. The *College Courant* of New Haven states the number of students to be between 60 and 70. Dr. Thomas Dwight, Jr., of Boston, succeeds Dr. Ford of the Michigan University in the chair of Anatomy; and Dr. T. T. Sabine, of New York, Dr. Green of Portland in the chair of Surgery.

CLEVELAND (O.) MEDICAL COLLEGE.—The commencement exercises took place on the 20th ult., when diplomas were presented to the graduating class, numbering 34.

Medical Miscellany.

Frank Wells, M.D., formerly Adjunct Professor of Obstetrics and Diseases of Women and Children in the Cleveland Medical School, has recently been appointed Professor of the above branches, in place of the late Dr. Charles A. Terry.

The Alumni Prize of the College of Physicians and Surgeons of New York has been awarded to Dr. Frank P. Foster, surgeon to the New York Dispensary, for an Essay on Animal Vaccination.

A New Vaccinator.—Dr. A. L. Carroll, of New York, has invented a convenient scarificator for vaccination, which is manufactured by Tiemann. It is simple and inexpensive, and is well adapted to its purpose.

The *Photographic Review* for February, containing Illustrations of Syphilitic Ulceration of the Nose, Hypertrophy of the Clitoris, Scrotal Hernia, and Lipomata, is on file at our office, and can be seen by our readers.

Dr. Lincoln.—Our readers in this neighborhood will welcome the speedy return of a former Assistant Editor of the Journal, after a year spent in Europe in the study of diseases of the nervous system.

The number of graduates in the Medical Department of the University of the City of New York, at the commencement held on the 20th ult., is stated to have been nearly 80. The prizes and Mott medals were presented on the same occasion.

Suggestions to Correspondents and Readers. — Articles intended for publication in the Journal must be written plainly and distinctly, on one side of the paper only, properly paged, and with suitable divisions into paragraphs. If so prepared, it is seldom if ever necessary that a proof of the article be sent to the writer. The punctuality required in the issue of a weekly periodical allows little time for proof-alterations or additions. When a proof is sent out, it should be returned to the office *promptly*, as the press in no case will be kept waiting for it.

Anonymous communications will not be published, unless the name and address of the author are entrusted to the Editors.

Accepted articles will generally be inserted in the order in which they are received; this rule will be waived, however, should the nature of the subject or the interest of the Journal require it.

Rejected articles will be returned, if stamps for the requisite postage be sent.

Letters, requiring answer, addressed to the Editors or Publishers for the benefit of the writer, must enclose stamp to ensure a reply.

Original articles, reports of societies, items of medical news, and professional communications of all kinds will be gladly received from members of the profession, wherever resident, so far as they pertain to topics of general interest. In the transactions of societies, the discussions which relate to questions of local importance, reports of business details, debates *in extenso*, and personalities of all kind, will, as a rule, be excluded.

The Editors do not hold themselves responsible for the views and opinions expressed in articles published; nor will their publication be considered, in any way, as an endorsement of their sentiments.

To Correspondents.—Communications accepted:—Fatal Hæmatemesis, from Cirrhosis of the Liver.

Books Received.—Practical Lessons in the Nature and Treatment of the Contagious Diseases; an Account of the Primary Syphilitic Poison and of its Communicability, &c. By John Morgan, M.D., F.R.C.S., &c. London: Baillière, Tindall & Cox. 1872. Pp. 338. (From the Publishers.)—Consumption and the Breath re-breathed, being a Sequel to the Author's Treatise on Consumption. By Henry Mac Cormac, M.D., Consulting Physician to the Belfast General Hospital, &c. London: Longmans, Green & Co. 1872. Pp. 155.

Pamphlets Received.—Medico-Legal Considerations upon Alcoholism, and the Moral and Criminal Responsibility of Inebriates. By Paluel de Marmon, M.D., of Kingsbridge, N. Y. Pp. 24.

Died,—In this city, 2d inst., Charles Gordon, M.D.—At Oakland, Cal., 26th ult., Edward B. Brigham, M.D., Surgeon U.S.N.

Deaths in seventeen Cities and Towns of Massachusetts for the week ending March 2, 1872.

Cities and Towns.	*No. of Deaths.*	*Prevalent Diseases.*	
Boston	117	Consumption	45
Charlestown	13	Pneumonia	35
Worcester	14	Scarlet fever	19
Lowell	21	Croup and Diphtheria	12
Milford	5		
Cambridge	15		
Salem	16		
Lawrence	12		
Springfield	11		
Lynn	9		
Gloucester	7		
Fitchburg	5		
Newburyport	0		
Somerville	6		
Fall River	8		
Haverhill	10		
Holyoke	4		
	273		

Five deaths from smallpox are reported: two in Boston, two in Springfield, and one in Fitchburg.

George Derby, M.D.,
Secretary of State Board of Health.

Deaths in Boston for the week ending Saturday, March 2d, 117. Males, 49; females, 68. Accident, 3—abscess, 1—apoplexy, 2—bronchitis, 3—inflammation of the brain, 2—congestion of the brain, 1—disease of the brain, 5—cerebro-spinal meningitis, 1—cancer, 1—caries of foot, 1—consumption, 24—convulsions, 2—croup, 2—cyanosis, 1—debility, 1—diarrhœa, 2—dropsy, 1—dropsy of the brain, 3—diphtheria, 2—epilepsy, 1—scarlet fever, 6—typhoid fever, 2—disease of the heart, 2—inflammation of parotid gland, 1—intemperance, 2—disease of the kidneys, 2—leucocythæmia, 1—disease of the liver, 1—congestion of the lungs, 2—inflammation of the lungs, 10—marasmus, 3—measles, 3—old age, 5—paralysis, 1—pleurisy, 1—premature birth, 2—peritonitis, 1—puerperal disease, 1—pyæmia, 1—smallpox, 2—disease of the spine, 1—suicide, 1—whooping cough, 2—unknown, 5.

Under 5 years of age, 43—between 5 and 20 years, 12—between 20 and 40 years, 31—between 40 and 60 years, 14—above 60 years, 17. Born in the United States, 82—Ireland, 22—other places, 13.

THE
BOSTON MEDICAL AND SURGICAL JOURNAL.

New Series.] Thursday, March 14, 1872. [Vol. IX.—No. 11.

Original Communications.

THE MEDICAL SCHOOL OF BERLIN COMPARED WITH THAT OF VIENNA.

By D. F. Lincoln, M.D., Boston.

To the crowds of young Americans who study, or look forward to studying medicine in Germany, the central point of attraction is undoubtedly the "Allgemeines Krankenhaus" of Vienna. Americans do not often deceive themselves when there is a question as to the practical advantages to be gained, and, upon the whole, Vienna must be admitted to deserve the popularity it enjoys. But there is another aspect of the question, of course. It would afford an exceedingly instructive comparison if Vienna were placed upon one side, and upon the other were grouped, by way of contrast, the leading medical schools of Germany—Berlin, Leipzig, Munich, Würzburg, Breslau, Heidelberg and others. What the points of contrast would be, I am unable to do more than hint; since the object of the present letter is mainly a description of the School of Berlin.

It is said, with apparent truth, that the physicians of Vienna differ from those of Berlin in devoting themselves much earlier and much more completely to specialties. Hence the charge sometimes made against them, that their development is less broad and general than it should be. We know that Skoda and Oppolzer did not achieve their greatness at the expense of breadth, for both had charge of general clinics, and both were men of truly sagacious minds, free from the objectionable influence which specialism sometimes exerts upon small men. But let these two men, with Rokitansky, stand for what the Vienna School has been during the last twenty years, and let Virchow, von Graefe and Griesinger stand for Berlin; are we not struck with the fact that the latter trio is composed of *great* men, in a sense in which the expression does not apply to their Viennese colleagues?

At the present time, in Vienna, Stricker is a man of purely special research. Billroth is perhaps the broadest, probably the most "practical" man in the School; he, however, is not an Austrian, but was summoned from a German university. Hebra and his followers, Kuhn, Neumann, Sigmund and Zeissl; Meynert; Arlt and Jaeger; Politzer and Gruber; Widerhofer; Benedikt and Fieber; Wedl, Schrötter, and others that might be named, form a brilliant group of men who are almost entirely devoted to specialties. The anatomists, pathologists, chemists and physiologists of Vienna are of equally deserved fame. But, outside of this remarkable array of talent, we find but one or two names of eminence in general medicine; a fact which strikingly coincides with the extraordinary poverty of opportunity for general clinical study, of which the students make earnest and just complaint. Inferences apart, Vienna is the school for specialties.

As a general rule, the value of teaching depends on the character of the teacher much more than on the amount of material at his disposal. There is enough material in Vienna, if judiciously used, to serve for thrice the actual number of students. It is used, or it is wasted, as the case may be; and if wasted, it harms the quality of the teaching more than mere poverty possibly could. If a Virchow had at his disposal fifteen autopsies a day, instead of five, no doubt he would know what to do with them; but upon young men the effect of such an overplus of matter is apt to be seen in superficial and careless habits. As a case in point, let me quote the remarks of a correspondent who has studied ophthalmic surgery in Vienna, and who now writes me from Breslau to the effect that the instruction in his specialty is most excellent: "the material is not very abundant, but what comes is most thoroughly worked up, which I consider much better than the mass of half-digested (?) material one gets at Vienna."

There is a good deal of justice in the general impression among us at home, which makes Virchow the representative of the Berlin school. Since the death of Graefe, Virchow stands undoubtedly head and shoulders above his colleagues in that city. Add to this the fact that he possesses an admirable gift of teaching, that he is master of an excellent laboratory, and abundant material, and is served by most efficient assistants, and it will not exceed the truth to say that for the study of pathology Berlin is incomparably superior to Vienna. If it be a prominent object with a student to make himself master of pathology, he should by all means visit Berlin before Vienna.

Virchow's lectures are about two hours and a half long; I have no doubt he could lecture six hours equally well, for he never shows a sign of flagging. On Mondays, he takes scalpel in hand and performs an autopsy before the class, making the body before him the text of his discourse; on Wednesdays and Saturdays he describes the specimens that have accumulated from the previous days. His statements are clear and simple, his voice distinct, his manner easy; he is never in a hurry, and never above the comprehension of his hearers. He enjoys a dry joke amazingly; and as he cracks it, with characteristic deliberation, he is apt to bring down the hammer upon the unlucky fingers of some of his hearers. As a teacher he leaves nothing to be desired; he was born to the office.

On Tuesday, Thursday and Friday a systematic course of microscopic pathology, lasting the whole term, is given by one assistant, under the general oversight of the Professor, and normal histology is taught in the afternoon of four days by the other assistant, the course lasting six weeks. Both of these microscopic courses are admirable, and both are fully appreciated by the British and American students. Good instruments are furnished for those of the class who do not own them.

With three hours' work in the forenoon of every day, and two hours in the afternoon of four days in the week, and collateral reading, a student need not blame himself if he finds his time wholly occupied by Virchow's courses, especially if he attends the systematic theoretical lectures which are given by Virchow on four days in the week.

The *Charité*, at which most of the clinical instruction is given, is a large, massive, not unattractive building of four stories, enclosing several ample courts planted with grass and trees. Internally its arrangements are simple, and hardly up to the modern standard, the fault of which lies in the fact of its being an old building. It is as clean, tidy and cheerful as the "Massachusetts General." The number of beds is in the neighborhood of eighteen hundred. The quadrangle known as the New Charité contains about three hundred beds, half of which are devoted to insane patients, and the remainder are occupied by the syphilitic and by prisoners and convicts sent thither by the authorities for treatment.

The Clinic for Mental Disease deserves especial mention. Griesinger introduced the "non-restraint" system in the wards under his charge, and it was through his efforts that the government was induced to permit the establishment of one of the first public clinics of the kind in Europe. His successor, Westphal, is a man in the prime of life, of quiet and gentlemanly manners, and a master of that tact which is indispensable in the care of the insane. His speech and intellect are quick and vivacious. As a lecturer, he is very systematic, and economizes, as far as possible, the lecture-time. Without placing him among the great thinkers of the day, I must still rank him among the best of lecturers upon medical subjects. To be sure, the lecture can never be dull; for one or two patients are always brought in and examined in the presence of the class. One must see this done in order to understand how entirely consistent are humor and humanity. Younger students do not attend these demonstrations; in fact, a large number of the hearers are physicians, forming an audience such as one seldom sees equalled for intelligence. They are divided into sections of a dozen or so, which make the morning visit twice a week in company with the professor. I could wish that every physician, and every thinking man, might come in contact with the insane element of our population in the free and natural way in which it is here effected. The wards resemble those of an ordinary hospital, and the degree of restraint exercised is no greater than that required in a children's ward at home. The patients have the liberty of two or three rooms, opening freely into a long, lighted hall or corridor, which is locked at both ends. These locks constitute the only restraint that the patients experience. It would take too long to describe the "non-restraint system." But let it be remarked, in passing, that during the four years of Prof. Westphal's superintendence, the strait-jacket has never been applied to a single one of the hundred and fifty insane, of all classes and conditions, who fill the wards of the Neue Charité; and that the result of this radical reform has been a wonderful increase in the quietness of the wards. Furious patients can be pacified, in almost all cases; and in an extremity, the cell, or chloroform, or chloral, remain as the most potent known soothers of maniacal frenzy. No patient is kept longer than 24 hours in the cell.

Two lectures a week are given on Mental Disease, and one upon Nervous Disease. The wards for patients of the latter class may contain fifty or sixty beds; the cases are extremely instructive, and are exhibited to the class in the same way as the insane cases.

Worthy to stand in the first rank, and to form an object of leading consideration with the student who is looking towards Germany, is Traube, the acute and indefatigable teacher of clinical medicine, less popular than Frerichs, his superior in rank, but possessing altogether a finer and stronger mind than the latter. It is not necessary to describe him at length, but only to say that his name deserves mention near the name of Virchow, in enumerating the attractions of Berlin.

Anatomy may be studied to advantage. The building devoted to this purpose is large, handsome and commodious. The dissecting rooms contain about forty tables, some for whole subjects, some for portions; they are well-lighted and ventilated, and the supply of material is abundant. From these rooms a trap opens up into the lecture hall, which contains about three hundred seats, and is a model of good arrangement. "The parts are given out every Monday. I was there this morning. There were twenty legs with half of the pelvis, for the crural nerves, fifteen or more arms, with half the thorax for the brachial plexus, a dozen half-heads cut perpendicularly for the brains, &c., six children, as many urinary organs, the bladders blown up, ready for distribution, besides other bodies and parts of bodies." Parts are distributed by lot. "Prof. Reichert passes two hours every morning in the dissecting room, going to half a dozen tables and dissecting and explaining to those around him. He lectures every day between 1 and 2. He has also his private rooms, where one or two anatomists work. Besides his course on general anatomy, he gives one on histology. His assistant, Prof. Hartman, lectures on osteology and syndesmology. The whole arrangement deserves much praise."*

Chemistry is very well taught by Hofmann and others. The laboratory is in the Georgen Strasse.

Materia Medica is also well taught, by Liebreich, the discoverer of the virtues of chloral.

In surgery, we find Langenbeck, Bardeleben and others; but there are several large cities where they speak English, in which surgery is better taught than in Berlin or Vienna.

Skin diseases and syphilis are taught here clinically, but there are other places for their study far better.

The lying-in department of the Charité contains two hundred beds. The subject is not especially well taught.

Tobold has a class in laryngoscopy, which is decidedly poor.

The eye is taught by Schweigger, an able man, and Hirschberg. The ear by Lucae.

In electro-therapeutics, the names of Eulenberg and Hitzig are well known, and their lectures (private) are better worth attending than those in Vienna.

In physiology, the names of Du Bois-Reymond, Rosenthal and Munk, require no comment, except to say that they are clear and excellent lecturers.

In all, one hundred and seventeen courses, great and small, are advertised upon medical subjects, not including zoölogy, botany, mineralogy and chemistry.

Last year there were 2113 matriculated students in Berlin, of whom 454 were studying medicine; 456 were foreigners. Besides these, 519 were in the field with the army. The medical students of Berlin are certainly much more prepossessing, both in appearance and manners, than those of Vienna. Indeed, they are as well-looking and gentlemanly a body of men as is often seen.

It is proper to add, that the cost of living in Berlin, though prices have risen since the war, is still much less than in New York. As an instance, a good furnished room costs from eight to twelve thalers a month.

The winter term commences about November 1st (nominally in the middle of October), and lasts till Easter. The summer term lasts till the middle or end of July. Few persons would willingly remain during the month of August.

* * *

LOWENSTEIN (*Centralblatt*, 35, Sept. 2d, 1871) shows that the mucous membrane of the vagina is not destitute of lymph-follicles, as is generally asserted in anatomical text-books.—*British Med. Journal.*

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* From a note from Dr. Coolidge, to whom and to Dr. Putnam I desire to express my thanks.

IS PHTHISIS CONTAGIOUS?

By C. W. Stevens, M.D., Charlestown.

I was present at the experiments on inoculation of tubercle by Prof. Villemin, of Paris, in 1865–1868. The inoculated rabbits invariably showed, after a variable time, fine neoplasms of tubercle at the spot of inoculation and in the regionary lymphatic glands, and were either killed or died of phthisis. These experiments have rightly raised the question as to the contagiousness of tuberculosis. I have lately observed a case which seems to favor the affirmative.

Mr. R., aged 29, died of phthisis after three years' sickness. The last few months of his life he had a tuberculous diarrhœa. His expectoration was purulent and profuse. He had returned home from abroad only six months before his death. He was nursed chiefly by his young wife, and assisted by his wife's mother. His wife had a fine constitution, a well-developed body, and had always been healthy. Her mother was likewise a very robust woman of middle age, with no hereditary consumptive tendencies. This young wife was incessant in her devotion to her husband—constantly sitting beside him, breathing his breath, bathing his body, and emptying his sputa and excretions. Near the end of his life she was taken with a slight diarrhœa. After his decease she appeared to go into a decline, and died of acute tuberculosis in about six months. About a year afterwards her mother likewise died of consumption.

It can hardly be said that these two victims of womanly courage and devotion went into a tuberculous decline from the fatigue and exhaustion of self-denying vigils; for nurses in long-continued typhoid fevers and other chronic diseases demanding great fatigue do not become tuberculous, but they often fall into a typhoid fever. I would be glad to have my professional brethren relate any experience bearing on this point.

A CASE OF MORBID CONDITION OF THE UMBILICAL CORD.

By J. F. Wakefield, M.D., Everett.

I was called to Mrs. R., multipara, Jan. 11, 1872, directly after Mrs. F., who had just been delivered of a son by breech presentation. Mrs. R.'s child also presented by breech. She told me, upon my arrival, that she had had no "motion" for two or three weeks. After the body was expelled, I found her words verified, the infant was still-born, and in searching for the apparent *cause*, I found the "umbilical cord," in as perfect a knot, midway between the infant and placenta, as one could possibly tie, with a common cord. Apparently it had grown so. Under the coils, it had atrophied to a degree. Upon dividing the cord, there was no exudation whatever; it seemed, and *was* impervious. The infant weighed, perhaps, seven pounds. Its cuticle rolled up, upon passing the finger over it, and was in a decomposing condition. The placenta came readily, with no unusual appearance about it. The woman got up well, with no metritis; and luckily for her, no mammary secretion. The lochia were present, as usual. I write this, for it seems rare to meet with just such a case.

Reports of Medical Societies.

BOSTON SOCIETY FOR MEDICAL IMPROVEMENT.

F. B. GREENOUGH, M.D., SECRETARY.

Dec. 11th.—*Favus.*—Dr. White reported the case and showed the patient, a girl 11 years old, who had had the disease three or four years. It had covered her head, eyebrows, arms and legs. The source of contagion was not known, but a brother and sister had caught it from her. The crusts had been removed with sweet oil and soap, epilation had been thoroughly done, and then parasiticides had been used.

The only morbid appearance that the patient showed, when exhibited, was a general redness at the site of the disease.

Dr. White demonstrated the microscopic appearance of favus on the blackboard, showing the spores, sporangia, mycelium and micrococcus. The cup-shaped crusts consist almost entirely of spores with some sporangia and very little mycelium.

Many dermatologists, and amongst them Hebra, consider that all the vegetable parasites are identical, and many experiments have been made, by means of inoculation and cultivation, to throw light on this point.

Hallier considers the favus plant to be an aspergillus, other authorities have thought it to be other well-known moulds.

Recent investigators will trace it back to either the aspergillus or penicillium. On the other hand, they have never succeeded in growing it from any mould. Dr. White thought, on the whole, that the plants in the three diseases caused by vegetable parasites, must be distinct from each other, and not connected with any other moulds. It has been found to be extremely difficult to transplant favus, but it has recently been accomplished, by boring into a hair follicle with a needle, and rubbing the spot with favus matter rubbed up in water. The appearances which result are, however, very different from those of favus as seen on the scalp. A papule first appears on the spot of inoculation, which becomes covered with scales.

Dr. White had inoculated his arm about six weeks previously, and had kept it covered with a piece of plaster. At the spot of inoculation there was a red, scaly patch, about half an inch in diameter, which resembled Herpes tonsurans, and had nothing in its appearance to show it to be favus. The microscopic appearance, however, which was demonstrated to the Society was that of favus.

Dr. J. B. S. Jackson asked with regard to the contagiousness of this disease.

Dr. White said that others in the family were generally found to be affected, but that it was some times years before it showed itself. Herpes tonsurans, on the other hand, will often give contagion in a few weeks.

Dr. Fifield spoke of a case which had been reported in England, where the use of a lotion containing the bichloride of mercury was followed by symptoms of poisoning and death. Recent writers would show that it was much safer to use a strong, than a weak solution.

Dr. White spoke of the impossibility of thoroughly curing favus without epilation. The reason of this fact is made evident by the microscope, as we see that the roots of the hairs are entirely filled with spores, which, as long as the hair remains in the follicle, the parasiticide cannot get at.

Dec. 11th.—*Calculus formed on Bullet.*—Dr. Cabot showed the specimen and reported the case.

F. H. McI., æt. 29 years, was wounded at the battle of Gettysburg, July 2d, 1863, while exposed to a cross-fire, the enemy being in front and on the right flank. Was struck by a bullet which came from right and somewhat to rear, on left side of 2d spine of sacrum; sacrum was fractured and bullet passed into cavity of pelvis. He received no treatment, at his own request, until he returned to his home in Brookline, where two surgeons saw him in consultation with his family physician, three weeks after injury. Probe was then passed from wound in sacrum across pelvis to os pubis; bullet could not be found by Nélaton's probe, or burr drills, but a scale of lead and twenty-three fragments of bone were removed. Six weeks after this operation, an abscess pointed one inch above left horizontal ramus of pubis; incision was made and revealed a sinus which passed down to region of pectineal line and across pelvis to sacrum. Free evacuation of pus being now established, no further treatment was pursued.

Leg became firmly flexed upon thigh, but he recovered the power of extension at the end of ten months sufficiently to walk. Says, however, that for five years he "felt a creaking or grating in his hip when walking about." Had pain in sacral region for six years; has also had pain along track of sciatic nerve from date of injury to present time. Never had pain in anterior portion of pelvis until one year ago. Fragments of bone escaped from both sinuses, which discharged pus for six years; never any urine or fæces. At the end of that time the openings healed, and all symptoms except pain in sciatic nerve disappeared for a year. One year ago, and seven years after receiving the injury, patient began to have pain in penis and bladder on micturition, which occurred more frequently than before. Pain continued to increase and micturition grew so frequent that he was unable to work, ending in a constant dribble. Entered the Massachusetts General Hospital Nov. 24th, 1871. Complained of loss of appetite, restless nights, and constant dribbling of urine; countenance looked careworn and anæmic. On examination with sound before entering, a stone was felt at entrance to bladder. On 25th, patient having been etherized, examination showed the presence of a large stone in bladder, and lithotomy was decided upon. Unilateral incision was made on left side, and stone was removed in fragments, one of which contained the bullet—a minie with ragged edges and smooth surface. The stone was very brittle, and the firm pressure necessary to remove one of its size, and the diminished cohesion due to the hard nucleus, caused its fracture.

Chemical examination of the calculus showed it to be composed principally of phosphate of lime; it also contained some carbonate of lime, the triple phosphates of ammonia and magnesia and uric acid.

Recovered from ether well; had almost no pain, and slept well first night after operation. During next day chicken-broth and beef-tea were well borne. Catheter was passed into bladder through urethra and a continuous stream of warm water was poured into bladder and out of perineal section for ten minutes; several clots of blood and small fragments of stone were washed out. Catheter was fastened into bladder and connected with a drainage tube, which served to convey water into vessel over side of bed. Wound healed rapidly, so that no urine escaped from it at the end of ten days, when catheter was removed.

General health was excellent from time of operation, the patient increasing in flesh and strength very rapidly. Now complains of nothing but slight difficulty in walking and some pain in sciatic nerve, resulting from original injury to pelvis and sacral plexus. Now, Jan. 13th, reports at visit, having been at home for a week, that he is entirely well.

Dec. 11th.—*Calculi from a Case of Cystic Disease of the Kidney.*—Dr. Borland showed the specimens and reported the case.

The subject from which these calculi were taken was a patient of Dr. A. H. Crosby, of Concord, N. H., by whom the autopsy was made, and who entrusted to me the specimens, requesting me to exhibit them to this Society.

The patient was a woman, 76 years old; and three months before her death, which occurred on the 4th of November last, she presented herself for treatment for an enlargement in the right hypochondrium, accompanied by œdema of the legs, which pitted on pressure. This enlargement was first felt to the right of the abdomen and above the line of the umbilicus; afterwards falling below the line, so as to occupy the right lumbar and iliac regions. It was hard and unyielding until a fortnight before death, when it became soft and fluctuating. Throughout the case, there was absolutely no pain. The woman took her nourishment up to the last—death presented nothing particularly noticeable, and she seemed to die simply from wearing out.

The autopsy was carefully made forty hours after death, and the only disease found was, on dividing the peritoneum, a sac, resembling in appearance an ovarian cyst, which, filling the right abdomen, adhered to everything, to intestines, spine, mesentery and kidney. A portion lay under the lower and transverse colon. The kidney appeared to be a sort of nucleus to the sac, which was much thicker at the bottom than at the top, and contained no pus, but held two quarts less an ounce of a clear fluid, having a somewhat urinous smell. No ureter could be found on the right side.

About seventy calculi are shown, and are about one-half of all that were found. The largest is about the size of an Italian chestnut, of a rough exterior, and filled what was evidently the pelvis of the kidney. Three others, rather smaller, but externally rough, were found, each in a separate pocket, or small sac, imbedded in the walls of the larger one. The remainder are rounded, polished, brilliant, either of a lead color or of a brownish hue, and spotted with fine white spots. They varied in size, from that of a large bean to a hempseed.

Bibliographical Notices.

We trust the publishers will pardon the necessity which obliges us to give brief notices of the following books. We have been obliged by the press of matter to defer an earlier mention of them, and are unwilling longer to delay bringing them to the notice of our readers.

Selected Obstetrical and Gynæcological Works of Sir James Y. Simpson, Bart., M.D., D.C.L. &c. Vol. I.—Containing the Substance of his Lectures on Midwifery. Pp. 852. *Vol. II.—Anæsthesia, Hospitalism, Hermaphroditism and a Proposal to Stamp out Smallpox and other Contagious Diseases.* Pp. 562. New York: D. Appleton & Co. 1871 and 1872.

The works of Prof. Simpson are not unknown to the medical world. The substance of his obstetric observations was collected and issued in 1855–56, by Drs. Priestly and Storer; his clinical lectures on the Diseases of Women were published in the *Medical Times and Gazette* in 1859–61; and various papers, on special subjects, have appeared, from time to time, in the medical publications of the day.

In the present edition of Prof. Simpson's works, the first volume contains the substance of the practical part of his course on midwifery. It is edited by Dr. J. Watt Black, who was, for five years, his assistant, and since that time his constant friend.

The second volume is edited by Sir W. G. Simpson, and contains most of the papers written by his father on the subjects mentioned, even to the last days of his life. The discussion on the discovery of anæsthesia and the correspondence with Dr.

Jacob Bigelow are given in full, together with the various papers written to explain and defend anæsthesia in its earlier days; then follow the series of communications on Hospitalism, recently written, and made familiar to the profession by various references made to them; the carefully elaborated article on Hermaphroditism succeeds; and the volume is closed by a newly-written article on "Smallpox, and the Means to be taken for its Abolition." The volumes thus issued contain the result of the researches, both new and old, of this active worker in the department of obstetric science, and, as an authority on such subjects, will continue to be extensively consulted by members of the profession.

The Principles and Practice of Surgery. By John Ashhurst, M.D., Surgeon to the Episcopal Hospital, Surgeon to the Children's Hospital, &c. Illustrated with 533 Engravings on Wood. Philadelphia: H. C. Lea. 1871. Pp. 1011.

A well-arranged and well-written text book, much in the style of Erichsen, Druitt and Fergusson, largely a compilation from the masters of the profession of the present day, but with the principles inculcated and the practice recommended conscientiously considered and reflected upon during a considerable service in hospital and private life.

Fecundity, Fertility, Sterility and allied Topics. By J. Matthews Duncan, M.D., L.R.C.S.E., F.R.C.P.E., F.R.S.E., &c. Second Edition, revised and enlarged. New York: Wm. Wood & Co. 1871. Pp. 498.

This work is already known to the profession. Its author has again presented it to the public, with slight alterations and numerous additions, and medical men will receive it, as it deserves, as the criterion of very much that is valuable and a compendium of a large amount of statistical information on the subjects of which it treats.

A Clinical Manual of Diseases of the Ear. By Laurence Turnbull, M.D., Physician to the Department of Diseases of the Eye and Ear of Howard Hospital of Philadelphia, &c. Philadelphia: J. B. Lippincott & Co. 1872. Pp. 486.

A somewhat careful review of this work impresses us with the belief that it is an excellent treatise on diseases of the ear. It embodies the results arrived at by a study of aural diseases for the past seventeen years, during which the author has seen several thousand patients. The book is well written, is sound, clear and eminently practical in all its parts. An excellent bibliographical list closes the work.

Electricity in its Relations to Practical Medicine. By Dr. Moritz Meyer, Royal Councillor of Health, Berlin. Second American from the Third German Edition. By Wm. A. Hammond, M.D. New York: D. Appleton & Co. 1872. Pp. 506.

This edition of Dr. Meyer's work on electricity differs from that noticed by us two years ago only in a few unimportant particulars. Most of the proof and other errors, noted by us at that time, have been corrected; we regret the occurrence of inelegancies of style and obscurities in the use of the English language, which are a blemish to the book. The Appendix is occupied by what appears to be an advertisement of the "Galvano-Faradic Manufacturing Company" and the display of instruments constructed by them.

Medical Thermometry and Human Temperature. By C. A. Wunderlich, Professor of Clinic at the University of Leipzig, &c., and Edward Seguin, M.D. New York: Wm. Wood & Co. 1871. Pp. 280.

This book by Dr. Wunderlich, the standard work on the subject, has been abridged by Dr. Seguin, and is given us in convenient form for ready reference. It embraces the results of long experience and careful observation in the use of the thermometer, an indispensable instrument to so many physicians.

Physiology of the Soul and Instinct, as Distinguished from Materialism, with Supplementary Demonstrations of the Divine Communication of the Narratives of Creation and the Flood. By Martyn Paine, A.M., M.D., LL.D., &c. New York: Harper & Bros. 1872. Pp. 707.

This work of Dr. Paine is the amplification of a lecture upon the soul and instinctive principle, delivered by him in 1848, in connection with his course of lectures on the institutes of medicine and materia medica; an enlarged edition was issued in 1849, and now it appears in still more extended form, another monument of the industry of this indefatigable writer and student. He devotes his attention, as his title implies, to the demonstration of the soul and the doctrines in materialism, to the vital and mental forces, spontaneous generation and Darwinism, the relations of creation and the flood to the doctrine of materialism and the progressive development of living beings, &c. The work is voluminous; it contains much of truth, and bears evidence of deep thought and careful study.

The volume has been sent us, as have many of those noticed in this issue of the JOURNAL, from the "Old Corner Bookstore" of Messrs. A. Williams & Co.

Selected Papers.

OBSERVATIONS ON OSTEOLOGY.

PERFORATION OF THE HUMERUS.

DR. CHARLES T. JACKSON, many years since, called attention to the fact that in several Indian skeletons observed by him, the two fossæ at the lower end of the humerus communicated. Similar observations have since been made by Dr. J. B. S. Jackson and others, and specimens showing this peculiarity are preserved in the Warren Anatomical Museum. This condition of the humerus has especial interest, since it is also met with in other races, and also in the apes.

Among the collection of human remains from the ancient mounds of the Western States and of Florida preserved in this museum, there are eighty specimens of the humerus, all unquestionably Indian. Of these, twenty-five, or about 31 per cent., are perforated and the rest are not. This character is rarely met with in the white races, and of fifty-two specimens expressly examined for the purpose, it was present only in two.

In the black races it is present in large numbers, though we know of no exact observations which show its frequency. Of seven skeletons of pure negroes in the Garden of Plants in Paris, just one-half of the fourteen upper arm bones are perforated. In the apes, though quite general, it is not constant, as in two large male gorillas we have found it on one side only, and in an adult female chimpanzee, it was wanting on both sides, and according to Mivart was wanting in one of the skeletons of an orang in the British Museum.

FLATTENING OF THE TIBIA.

Among the peculiarities of the ancient races of the old world the flattened or sabre-shaped tibiæ found in the dolmens of Chamont and Maintenon, the quarternary drift of Clichy, and the burial caves of Cro-Magnon and Gibraltar, have attracted especial attention on account of their marked deviation from what is seen in the modern European races, and also on account of their alleged resemblance to the corresponding bones of the apes. This flattening, however, does not appear to have been universal during the reindeer period in Europe, since there are other instances, as in the caves of Belgium, where the bones in question, of this same age, have the ordinary shape. On the other hand Mr. Busk states that all the tibiæ from the caves of Gibraltar were flattened.

The existence of such flattening among the aborigines of N. America has not, in so far as we have been able to learn, been noticed hitherto, but from materials belonging to the Peabody Museum, there is no doubt that it prevailed largely, but in a variable degree. It is easily recognized in the large series of bones obtained from the mounds of Kentucky by Mr. Lyon, also in those from the mounds and caves of Tennessee by Mr. Dunning, from a mound in Michigan by Mr. Gillman and from mounds in Florida by the writer. Dr. George A. Otis informs me that he has observed a similar flattening in some of the bones from western mounds, belonging to the ethnological series of the Army Medical Museum at Washington. The flattening results, as it were, from the compression of the bone from side to side, so that either the hinder of the three faces makes a more open angle with the inner, or, in addition, is bent upon itself near the middle, thus making the transverse section of the tibia four instead of three sided, and in either case giving it a sharp edge on the hinder as well as the fore part.

Of the tibiæ of forty individuals from the mounds of Kentucky, one-third presented this flattening to the extent that the transverse did not exceed 0.60 of the fore and aft diameter. The most extreme case was from the mound on the River Rouge in Michigan, in which the transverse diameter was only 0.48. In the most marked case mentioned by Broca, *viz.*, in the old man from Cro-Magnon, it was, as deduced from his figures, 0.60.

This flattening of the tibia can hardly be considered a race character, since it is found in only about one-third of all the individuals observed and in these in variable degrees. That in the proportions of the two diameters, as stated by Broca, these tibiæ resemble those of the apes there can be no doubt, and the resemblance is still more striking in a smaller number of instances in which the bone is bent and is strongly convex forwards, and its angles so rounded as to present the nearly oval section seen in the apes. The anatomist, however, will not fail to recognize the fact that in the relative length of the bone, in the lines corresponding with the muscular attachments, in the direction of the crest and the forms of the articular portions of the bone, the human characteristics are unchanged and that there is therefore no assimilation to the apes in these respects. In some of the tibiæ the amount of flattening surpasses that of the gorilla and chimpanzee, in each of which we found the short 0.67 of the long diameter, while in the tibia from Michigan it was only 0.48.

From a comparison of the skeleton of the human races, as far as made, it is quite clear that in several respects some of them have peculiarities which seem to assimilate them to the apes. These peculiarities are not, however, confined to a single race, but are distributed in different degrees through several, and it is not improbable that future studies will show a still greater variety of resemblances, and a wider distribution of them, than is now known. The increased length of the forearm, as compared with the humerus, is almost equally shared by the blacks and the recent Indians. The Indians, from the mounds of various parts of the country, as well as the inhabitants of the ancient cave dwellings of Europe, have the flattened tibia. The Indians, ancient as well as modern, in common with the Hawaiian Islanders, have the most backward position of the foramen magnum, while the Negro, on the other hand, with his lengthened forearm, has this foramen almost as central as in the white man. The small brain is not, as might at first well be supposed to be the case, found in the most degraded races alone, but in these, in common with a race which had, as already stated, risen to a semi-civilization; nor is it constantly associated with the lengthened forearm, since in the Australians this is even shorter than in the white man. From these results it seems obvious that we cannot give to the alleged resemblances between the human races and the apes their full meaning, until we have much wider comparisons than have as yet been made.—Prof. Wyman's *Report on the Peabody Museum.*

Prof. Liebermeister, of Basle, has been appointed to succeed Niemeyer at Tübingen.

Medical and Surgical Journal.

Boston: Thursday, March 14, 1872.

PRACTICAL QUESTIONS FOR THE YOUNGER MEMBERS OF THE PROFESSION.

Where shall I establish myself in the practice of medicine so that I may benefit my fellow-men, as well as secure for myself a reasonable return for my services? How shall I employ my time while I am "waiting for patients?" What must be my relations toward my fellow-practitioners? What inducement is offered me to lead the quiet, plodding life of an *honest* physician, when I might reap the speedy golden harvest of a charlatan?

A score of fair and honest questions like these come up in the mind of every conscientious young man, as he is on the eve of graduating in medicine; questions which to his mind are insoluble by the *savoir faire* which governs the affairs of the world in general or by the common rules of morality. With his heavy sails—anatomy and physiology, clinical medicine and the others—he is still at a loss how to trim what seem to him the royals or the studding sails, so as best to complete his medical outfit. But to those older than himself, who are fully launched on the voyage of life, and who feel the need of all the strength a true man *can* have, these very points and such as these form the very keel, the ribs and the planks on which to build the foundation of an honest physician's character.

With years enough over our head to give us a certain right to advise, but not enough to remove us from an entire sympathy with the youngest of our profession, we shall gladly consider some of these points in a way which, we hope, will be useful to such young men; which shall lead to good intentions at the outset and to good practice in the course of medical life. Serious considerations they will be, without doubt, but not more serious than life itself; little fitted, it may be thought, to the impulses of young men, and the seeming advantages which a less scrupulous course would seem to offer them, but the steady breeze is more to be trusted than the whirlwind, and will bring the sailor to a safe harbor in the end.

With this commencement, let us practically consider the choice of a location for practice. We have often felt that young men did not start in the right place or in the right way. A certain fortunate few find a place prepared and awaiting them in the office of a father, a friend or instructor, and nothing remains but to move in and occupy it; but with the mass of young men a place must be created, a patient must be picked up here and there, and only after years of toil will they find themselves in possession of a practice. We start with the proposition that, in selecting a locality for such a practice, our young men do not sufficiently consider their own qualifications to fill it. It is a homely expression that a good shoemaker is often spoiled in making a poor doctor; and it is no less true that we are forced to nod over the prosy sermons of a dominie, when we ought to be kept awake by the ring of his anvil. Now it is equally true that hundreds of excellent medical men are starving, while waiting for practice in large cities, who ought to be back among the hills, fighting disease which exists there as well as in the more populous districts; they ought to carry far and wide, throughout the land, the newest scientific information which the best schools of the day can give; and so help to "elevate the standard," as the popular educational term expresses it.

We say to our young men, *study yourselves well;* consult your inclinations less than your innate qualifications. If you are best fitted for the country by habit, by education, by character, *stay there.* There is enough to do all over the land; our population is fast increasing; cities and towns are rapidly growing all along the great lines of travel, and each hamlet which has its blacksmith and its country store and its gristmill, needs its doctor too. Do not crowd into a city because it has its libraries and its medical societies, but carry your libraries and societies with you, and make your home, wherever it may be, a scientific centre in its way, and you can do your share in raising the professional standard. We can point you to a hundred flourishing places where medical education *needs* elevating; we are confident that each one is in want of a good, *scientific* physician. *We know it, and our waste-basket will prove it.* We do not enjoy the accounts of teaspoonful doses of calomel for membranous croup or of the application of ligatures about limbs to stop arterial hæmorrhage till the member becomes gangrenous. We wish our younger men would go where such barbarisms are enacted, and both preach and practise better doctrines.

All these are plain words; they are not intended as an intimation that the city must be preserved for those already there, but rather to bring together those places which are in need of a new race of scientific practitioners, and the *practitioners* who need the localities in which to practise.

We must defer until another time the consideration of other similar topics which suggest themselves.

Annual Report of the Cambridge Hospital.—In imitation of the larger cities, we are glad to note the establishment of hospitals in our smaller cities, and that the poorer residents of such places will in this manner have systematic and skilful care given them at their very doors. We have received the annual report of the Cambridge Hospital for the years 1870 and 1871. This institution was organized in 1867, through the exertions of a single benevolent lady, and since that time, it has been sustained, mostly, by her individual exertions. The want of a suitable house, the need of friends and similar trials have operated to cripple its beneficent work at times, but, in spite of such drawbacks, the hospital, although once or twice closed for a time, has continued its existence and now has received an act of incorporation, and, we trust, is permanently established. The founder says: "When I opened the hospital, I had not sufficient means to carry me through one year; but I began in the faith that all needful wants would be answered as they came round, and that a good work would not be suffered to fall to the ground; and my faith was justified."

Since the 1st of December, 1869 (the period embraced by the present report), there have been treated 122 patients, and among those but 4 deaths have taken place. A large number of out-patients have also been cared for. The medical attendance has been rendered by Drs. J. T. G. Nichols and C. E. Vaughan of Cambridge.

This hospital was first opened for the care and treatment of women and children: it is now hoped that sufficient means can be raised to make it a general hospital for both sexes for the city in which it is situated.

Editors and Publishers.—Contests between persons so closely connected as Editors and Publishers are, to say the least, disagreeable circumstances; but, when such disturbances result in breaking up valuable periodicals, their effects go farther than the office of publication and concern the public interest.

The publication of the *National Medical Journal*, of Washington, and the *Medical World*, of New York, both well conducted journals, has been either temporarily or permanently suspended by the proprietors; and the Editors, Drs. Busey and Lee, of Washington, and Dr. Vance, of New York, summarily ejected from their chairs. In the former case the Editors exercised the right, which was justly their due, and declined to receive an article " in the shape presented." The Editor of the *World* disavows any connection with it in its present form; the matter is before the courts for adjudication. We do not hesitate to say that the ejection of these gentlemen by the proprietors, *as expressed in their circulars*, is *outrageous*, if not libellous.

The Pathology of Hysteria, which the name of the disease suggests, has not found general acceptance, and not a few authorities have deprecated a nomenclature so apparently inconsistent with correct notions. In a recent number of the *British Medical Journal*, however, we find that Dr. Tilt, the well-known English gynæcologist, defends the wisdom of the Hippocratic denomination and restores to the uterus its original place in the etiology of hysteria.

After commenting at length on the inconsistency of those who teach that disturbancy of menstruation or other uterine affections are absolutely independent of the state called hysteria, while they yet confess their profound ignorance of all uterine pathology, and after deploring the habit of many well-known pathologists to slight the diseases of women in all their various direct and indirect relations to other pathological conditions, Dr. Tilt says that in his view the disease under consideration requires two factors for its production: 1, A predisposing nervous state; 2, The stimulus of some determining cause. The former dedends on some modification of the emotional element which is found most emphatically developed in women, and is only met in such men as approach the feminine type in their nervous organization. This modification of the normal emotional state is intensified by the injudicious training of childhood, at the expense of reason and self-control, and thus hysteria is a disease of the upper classes.

Of the determining causes, aside from those of a general nature, as the debilitating effect of loss of blood, physical or mental shocks, prolonged anxiety and the like, those which originate in the viscera are of most consequence; and the most common condition which, by reacting on the disturbed emotions, will produce the train of symptoms called in general hysteria, is the mildest form of ovarian disease, as, for example, subacute ovaritis, or the lesions belonging to morbid ovulation, and which frequently pass unrecognized under the disguise of diseases of menstruation. Of uterine affections, it is chiefly the milder sort, that are mucous membrane deep, which cause the disease in question; and sometimes by applying nitrate of silver to an ulcerated cervix, we most unwittingly bring on an attack in patients who presented no signs of its being likely to come on, and thus experimentally prove that the two complaints may stand in relation as cause and effect. This reaction or reflex effect appears to depend on the relation between the nervous centres and the viscera through the ganglionic nervous system, and is independent of any blood-poisoning. In many hysterical fits, after a period of incubation, in which the system seems to become more and more charged with excitement, the attack begins by pain in the womb and ovaries. Soon the hysterical aura passes to the epigastric ganglia, and, concentrating there, gives rise to the suffocation and distress characteristic of the disease. Ascending still higher, the hysterical aura reaches the cervical ganglia, producing the sense of strangulation; it then attacks the brain, deranging its functions in ways too numerous to be mentioned, and, at the same time, deranging the functions of the spinal cord, according to the degree of tension of the hysterical aura.

The author believes that his observations lead to three practical deductions: 1, To be efficient leaders of the profession and lecturers in our public schools, our hospital men should be thoroughly acquainted with the diseases of women. 2, Whenever a patient is hysterical, the state of menstruation should be carefully ascertained, and the sexual organs should be accurately examined, if they present signs of disease. 3, The best way for neurologists to disperse the clouds which still overhang our knowledge of hysteria and its allies, catalepsy and epilepsy, is for them to study the diseases of the ganglionic nervous system.

Croup Treated by Inhalation of Oxygen.—In the *Richmond and Louisville Medical Journal* for January, a case of membranous croup, in a child of 3 years, is reported, in which, after the use of various remedies (including Turpeth mineral, powder of pepsin by insufflation and lactic acid), the inhalation of oxygen gas was resorted to in the latest stage of the disease. The immediate effect was most marked and gratifying, the labored breathing soon becoming almost natural, and the color of the face and lips normal. Sixty gallons of the gas were consumed during one night, being administered when necessity indicated, along with an expectorant mixture and Dover's powder; its use was subsequently continued, at intervals, whenever there was danger of asphyxiation, until respiration became restored to nearly the healthy state, in consequence of the detachment and expectoration of the false membrane. The child fully recovered after fourteen days from the commencement of the attack.

Dr. Francis J. Higginson.—Dr. H., whose death has just been announced, was a son of Stephen Higginson, Esq., who was for many years steward of Harvard College, and was well known and most highly respected in this community. Dr. H. was graduated at Cambridge in 1825, and three years afterwards received his medical degree. For a few years he established himself in this city, but the greater part of his medical life was spent at Brattleboro', Vt., and he enjoyed there a good amount of practice. His health had been failing for some time, and about three years ago he removed to Brookline, where he quietly ended his days at the age of 65 years, some affection of the brain being the disease under which he sank. He married a niece of the late Rev. Dr. Channing, who survives him, with their two daughters.

Dr. Higginson was a man of great purity of character, of cultivated tastes, in his manners a true gentleman of the old school, and highly respected by all who knew him. A scrupulous conscientiousness was one of his prominent characteristics, and the fidelity with which he discharged his professional duties always won for him the gratitude and affection of his patients. He had a most sympathizing heart, and, when he was obliged to relinquish practice, his loss must have been felt by many friends. He had the confidence of those who knew him well, but a modest distrust of himself probably often led him to hesitate, where others, much less qualified than himself, would have given a decided opinion and gained, in proportion, the more credit. With his professional brethren he was on the most friendly terms, and he has passed away without a stain upon the fair character that he always sustained. J.

March 11, 1872.

Spina Bifida.—Dr. v. Brunn, in *Berlin Klin. Wochenschr.*, reports a case of spina bifida in a girl fifteen months old, which resulted in a cure. It was pedunculated, and the base was gently secured by a clamp; about half the liquid contents of the tumor were then drawn off, and the clamp was drawn so as to restore the tension of the tumor. This manœuvre was repeated daily, and on the seventh day the tumor fell off. The canal communicating between the tumor and the spinal canal was not closed, and with each scream of the patient cerebro-spinal fluid escaped. Contrary to expectation, no serious symptoms followed, and after about four weeks the canal was closed, and three and a half months later the cicatrix was so firm that it did not yield during the severest exertion.—*Med. Chir. Rundschau.*

The Origin of Fibrin.—P. Mantegazza (*Centralblatt*, No. 45), for the purpose of deciding some points in dispute in regard to the composition of the blood of the splenic vein, performed several experiments on dogs. In the majority of the experiments the blood of the splenic vein was found to contain more fibrin and fewer corpuscles than that of the jugular vein; but in almost as many instances the proportions of these substances were reversed, or the composition of the blood of the two veins was exactly the same. The spleens of three rabbits were excised; but the operation seemed to have no perceptible influence upon the amount of fibrin in the blood. The injection of a solution of urea into the blood of rabbits and dogs was followed by the disintegration of a large number of blood-corpuscles, and, if the animal survived for some days after the operation, by a marked increase in the amount of fibrin—in one case nineteen parts in a thousand. Lactic acid was also injected into the blood of several animals. Its effects varied according to the amount injected and the concentration of the solution. They were also not the same when it was introduced into the peritoneal cavity as when it was injected into the veins. In the former case, peritonitis and entero-colitis were the local results; and these may prove fatal. In both cases, congestion and inflammation of the lungs, inflammation of the kidneys and hæmaturia, as well as reddening and swelling of the endocardium, were produced. In the case of a dog, symptoms of articular rheumatism, with endocarditis and fever, were observed. Valvular lesions were never noticed. The blood-corpuscles were diminished and the fibrin increased. In the blood of animals poisoned by lactic acid, clear bodies of different sizes, presenting in some cases a diameter of 1mm., were seen. They were semi-transparent, and were composed of fibrin and white blood-corpuscles. It is not improbable that these give rise to embolism, and, consequently, to inflammation of the lungs. Mantegazza has not observed any increase in the amount of fibrin in the blood of animals to which the induced current has been applied or in which convulsions have been induced. The examination of the blood of persons who have died of tetanus has yielded the same result; and while in some cases the blood of parts subjected to violent movements has been found to show an increase of fibrin, in others it has contained less fibrin than the blood of parts at rest.

Mentagazza is of the opinion that the coagulation of the blood and of the coagulable fluids depends upon a condition of irritation of the white blood-corpuscles, which, when in contact with foreign bodies or inflamed tissues, or when removed from their physiological influences, emit a substance which is either fibrin or is the substance from which fibrin is formed. The red blood-corpuscles are not at all necessary to the formation of fibrin. Lymph and inflammatory serous effusions which do not contain them are capable of coagulation; but every coagulable liquid must contain the white blood-corpuscles, and will not coagulate when these are mechanically removed. Sussana attributes the relatively greater amount of fibrin in the arterial blood than in the venous to the fact that just before the venous blood enters the heart it receives from the thoracic duct a large number of colorless blood-corpuscles. In many conditions where an increase in the amount of fibrin is observed (pregnancy, digestion, the blood of the splenic vein), an excess of the white corpuscles may also be detected. And wherever in inflammation the white corpuscles accumulate, there fibrin will also be found.—*Phil. Med. Times.*

The Subcutaneous Injection of Morphia in Traumatic Erysipelas.—Prof. Estlander, of Helsingfors, states that he employed this injection originally in his clinical practice, in combination with the so-called abortive treatment (chiefly by means of tincture of iodine), mainly with the view of relieving the heat, tension and pain of the inflamed skin. It was soon found, however, that the morphia must have exerted other effects also, so quickly was the course of the disease mitigated. It was therefore used in a series of cases as the sole local remedy, and the conviction became established that it must have exerted a direct influence on the inflammatory process, diminishing its intensity and arresting its progress. When the limits between the inflamed and healthy portions of the skin are not very clearly defined, and the process manifests itself in the form of large red spots gradually approaching each other, if we inject near the affected parts we usually find next day that the erysipelas has not extended farther, or has done so only to an insignificant extent. In cases in which the limits of the reddened and swollen skin are well marked, if we make some injections in its vicinity, we may find that the inflammatory process, which during the preceding twenty-four hours had made considerable progress, is sometimes at once arrested, but more frequently it continues in a diminished degree, gradually yielding in the course of a few days to a continuation of the treatment.

In the worst cases of erysipelas ambulans, as in the severe epidemic form, or where a peculiar disposition of the individual prevails, the morphia exerts as little effect as any other of the so-termed abortive remedies. In estimating how far the results depend upon the peculiar nature of the erysipelas itself, and how much they are ascribed to the injections, Prof. Estlander has undertaken many comparative trials, and he could relate many cases in which, while a rapid improvement followed the use of morphia, other cases treated at the same time, either expectantly or by means of other remedies, were much slower in their progress. Still, he is too well aware of the capricious character of erysipelas to venture to deliver any categorical judgment upon the subject. But a five years' experience has convinced him that these injections constitute a better mode of treating erysipelas than many other means.

The dose varies from one-eighth to one-quarter of a grain. As, so far from the erysipelas ever appearing at the small puncture-wounds, these and their immediate vicinity are always represented by it, the dose may be distributed over different parts of the healthy skin, at a distance of one or two inches from the limits of the inflammation. Usually, the injection is made only once in the twenty-four hours. Prof. Estlander has no intention of proposing this as an exclusive method of treating erysipelas, believing, on the contrary, that one of its advantages is that it admits of the simultaneous use of other means. He has tried, indeed, all the various other remedies which have been recommended, and regards the tincture of iodine as the best of these. As soon as from shivering and the appearance of the wound erysipelas seems threatening, he administers an emetic, a means which he believes is nowadays too much neglected, and one which he believes conduces to moderation of the disease. The morphia is next injected, either as the sole means, or in conjunction with a daily painting with iodine, employing afterwards wadding and compression by a roller where practicable. Ipecacuanha with phosphoric or sulphuric acid may afterwards be administered. The sesquichloride of iron, once regarded as a specific, is of no real utility. —*Deutsche Klinik.*

Local Treatment of Anthrax by Strapping.—In a communication to the *British Medical Journal,* Dr. Gloag, of Bristol, makes the following statement:—

I have seen the pressure-treatment of anthrax employed in a large number of severe cases, and with such success that I did not know a death to occur in consequence of that disease during the four years that I attended the hospital. The advantages of the pressure-treatment of anthrax over incision or cauterization are, that it is safer and more rapid; prevents, to a great extent, the destruction of integument; and is more agreeable to the patient. I believe the action of strapping to be twofold: firstly, it acts like the pressure-treatment of orchitis, by emptying and supporting the vessels; and, secondly, by pressing out the peculiar exudation, which closely resembles slough, but which it can hardly be, because it is circumscribed, and quite free from unpleasant smell. This mode of treatment, to be of use, must be fully carried out; the sides of the anthrax must be drawn together by broad strips of sticking-plaster, with all the force that the surgeon can exercise or the plaster will bear. Nothing less is of any utility. The mode of strapping a large anthrax is to cut the plaster in strips about two feet long—one half of each strip being about two inches wide and the other about an inch and a half. These are applied in pairs, by making the broad ends adhere to the skin on opposite sides of the anthrax, in such a manner that, when the narrow ends of the plaster are drawn together, they shall pass over the tumor, the narrow part of one strip of plaster meeting the edge of the broad part of the plaster of the opposite side, thereby giving the appearance as if one strip of plaster three inches and a half wide had been applied. About eight of these strips are to be thus put on, so that they shall present a stellate arrangement, with the centre corresponding to the apex of the tumor. The anthrax will require to be dressed every day; the strips of plaster are to be removed, and the part sponged with warm water, to remove any discharge that may have exuded from the small openings on its surface; after which, I have found it advantageous to rub the surrounding skin with a little turpentine, to remove any sticky matter that adheres to it from the plaster. The pain which the strapping causes at first is soon succeeded by a feeling of comfort and support. I believe that the growth of an anthrax may be considerably curtailed by early strapping; and I am of opinion that this method of treatment, when the situation of the anthrax will admit it, and if properly carried out, will be found more efficacious than any other.

A NEW METHOD OF SECURING THE VESSELS OF THE PEDICLE IN OVARIOTOMY.—Dr. J. P. Hayes introduces to the notice of the profession a method, he calls "sub-peritoneal," for securing the vessels of the pedicle after the removal of an ovarian tumor. He is of opinion "it will prove useful, especially where the pedicle is short. The proceeding closely resembles that known as the subcutaneous ligature of nævus, and consists in first compressing the pedicle between the blades of a clamp or long forceps, then passing a needle armed with a stout catgut ligature beneath a good thickness of the serous surface of the pedicle, but superficial to the principal vessels; the needle being withdrawn at the side opposite to the point of entrance, is again passed into the aperture of exit, and pushed between the vessels and peritoneal covering, on the side of the vessels opposite its first passage, until it can be withdrawn through the opening made by its first entrance; then the ends of the catgut ligature are to be strongly tied, and cut off short, so as to prevent the possibility of hæmorrhage from the included vessels, yet, owing to the bulk of unligatured substance superficial to the catgut, there will be no sloughing of the end of the pedicle, its vitality can be maintained, and even adhesions will probably connect it with some adjacent portion of the peritoneal surface, whilst in time the catgut, inclosed by living tissue, may become absorbed. Although bleeding from the chief vessels can be prevented in the manner described, yet it is quite possible that oozing may take place from the divided orifices of small circumferential vessels. In such a case the actual cautery applied to the cut surface will afford ample security against recurrence of bleeding.

"Should the pedicle be sufficiently long to permit of its being secured between the edges of the abdominal wound by means of an electro-gilt transfixing pin, the ends of the catgut (or other) ligature, instead of being cut off short, might be passed through the eye of the needle, and carried parallel to the vessels through the centre of the pedicle, so as to emerge at the cut surface, from which they could be withdrawn after the lapse of seven or eight days."—*Dublin Quart. Jour. Med. Sci.*

TREATMENT OF GONORRHŒA BY WATER INJECTIONS.—Dr. H. F. Patterson, of the Royal Artillery, writes to the *Lancet*, June 24, 1871, substantially as follows:—

"For a considerable time I have been in the habit of treating my cases of this affection with water injections only, and I do not remember a single case of failure where the system was adopted at the commencement of the disease, and employed throughout. I begin with injections of lukewarm water, continued till the chordee and scalding cease, after which cold water is substituted and continued till cure. My instructions are, to use the injections freely once an hour during the day, and as often at night as can be done conveniently. I generally give a little saline mixture internally, as a laxative, but do not consider this essential to the treatment, the principle of which is to keep the mucous membrane clear, and, as much as possible, free from its own unhealthy secretion. Cubebs, copaiba, and the other unpleasant nostrums of gonorrhœa, I have long since ceased to employ. My cases get well in a shorter time than under any treatment I have tried, and are free from unpleasant sequelæ. Epididymitis is very rare; gleet will, I believe, almost never occur, if the treatment be well carried out. Without any statistics at hand, I believe the average duration of treatment is from ten to fourteen days."—*Detroit Review of Medicine and Pharmacy.*

SODA MINT.—The very popular "soda mint," so much employed as an antacid and carminative for over-fed infants and dyspeptics, was originally a favorite prescription of Dr. George Norris, of Philadelphia. His formula was the following: ℞. Sodæ bicarb., ʒss.; spt. ammon. aromat., ʒj.; aquæ menthæ piperi, Oj. M.—Dose: from a dessert-spoonful to a table-spoonful for adults; from half to one teaspoonful for infants.—*Journal of Pharmacy.*

Medical Miscellany.

On Re-vaccination.—The Council of Public Hygiene of Paris, consisting of an eminent quintaine, Beaude, Bouchardat, Michel Levy, Vernois and Delpech, have issued a report on the recent smallpox epidemic. They say the reproaches against vaccination are unjust in every respect. It has, in no respect, lost its power of preservation from smallpox. The only method of putting an end to epidemics of this disease is to effect the greatest possible number of vaccinations. Re-vaccination practised with the necessary precautions presents no danger whatever. It ought to be effected at ten or fifteen years of age at latest, and repeated every four or five years, as long as it does not produce a regular pustule.—*Phil. Med. and Surg. Reporter.*

A New Test-Paper.—M. Bottger has produced a highly sensitive new test-paper for alkalies. The reagent is a magnificent coloring matter, obtained from the leaves of an exotic plant *(Coleus Verschaffelti)*, upon digestion for twenty-four hours, with absolute alcohol, to which a few drops of sulphuric acid has been added. The paper is prepared by the usual process. The color is a splendid red, which passes more or less rapidly into a fine shade of green. It is far more sensitive than either turnsol or tumeric; it is unaffected by carbonic acid, and will indicate the presence of the least traces of the carbonates of the alkaline earths in natural waters. A moistened strip of the paper, when held at the opening of a gas jet, immediately assumes a green color, from the effect of the ammonia.—*Druggists' Circular.*

The Cheapest Medical School.—The Medical College at Keokuk, Iowa, sends out circulars, on the outside of which is printed—"This is the Cheapest Medical School in the Country." So we read in the *Leavenworth Medical Herald.* Such junk-shop advertising is clearly a violation of both the written and the unwritten code of ethics, and places the school that is guilty of it nearly on a level with that infamous concern in Philadelphia which sells diplomas like rat-traps. We hope the other medical schools will repudiate the Keokuk concern, by refusing to acknowledge its diplomas.—*Pacific Med. and Surg. Journal.*

Chloroform and Glycerine.—Dr. W. Murdock, of New York, recommends the following formula as a convenient mode of administering chloroform: Glycerine, six ounces; chloroform, two ounces. This solution is clear, and not unpleasant in taste or odor. One drachm contains seventeen minims of chloroform.—*Atlanta Med. and Surg. Journal.*

Anecdote of Dupuytren.—The large class of recalcitrant patients Dupuytren used to circumvent by means of a bell. When a patient who ought to pay left his consulting room without bestowing the customary *honorarium*, he touched a particular bell, whereupon the porter, before opening the front door, said: "I believe monsieur has forgotten his fee," and thus forced the would-be-dead-head to be honest.—*Phil. Med. and Surg. Reporter.*

The sanitary department of the municipality of Vienna has determined to purchase 100,000 hundredweight of sulphate of iron for disinfecting the latrines and sewers; and to have a short and concise treatise on the necessity of disinfection printed and circulated among all the householders.—*British Med. Jour.*

To Correspondents.—Communications accepted:—Case of Spasm of the Accommodation, with Concentric Limitation of the Fields of Vision—quick Recovery.—Intemperance in Massachusetts.—Case of Bright's Disease.

Pamphlets Received.—Address on laying the Corner-Stone of the College of Physicians and Surgeons of Wilmington, N. C., Dec. 27, 1871, by Noble Young, M.D., Professor in Georgetown Medical College of Washington, D. C. Pp. 20.—Lecture on Water, delivered before the American Institute of the City of New York, in the Academy of Music, Jan. 21, 1871. By C. F. Chandler, Ph.D., New York.

Died,—In Brookline, March 9th, Francis J. Higginson, M.D., aged 65.—In Chelsea, March 8th, James B. Forsyth, M D., aged 62.

Deaths in seventeen Cities and Towns of Massachusetts for the week ending March 9, 1872.

Cities and Towns.	*No. of Deaths.*	*Prevalent Diseases.*	
Boston	153	Consumption	56
Charlestown	12	Pneumonia	41
Worcester	28	Scarlet fever	15
Lowell	22	Typhoid Fever	9
Milford	9	Croup and Diphtheria	6
Chelsea	6	Erysipelas	6
Cambridge	22	Measles	6
Salem	15		
Lawrence	10		
Springfield	6		
Lynn	16		
Fitchburg	1		
Newburyport	6		
Somerville	4		
Fall River	9		
Haverhill	8		
Holyoke	2		
	329		

Boston reports three deaths from smallpox.

George Derby, M.D.,
Secretary of State Board of Health.

Deaths in Boston for the week ending Saturday, March 9th, 152. Males, 81; females, 71. Accident, 4—apoplexy, 3—disease of the bowels, 1—bronchitis, 4—inflammation of the brain, 2—congestion of the brain, 2—disease of the brain, 1—burned, 2—cancer, 2—cerebro-spinal meningitis, 1—cholera infantum, 1—consumption, 27—convulsions, 4—cyanosis, 2—diabetes, 1—diarrhœa, 4—dropsy, 1—dropsy of the brain, 2—drowned, 1—diphtheria, 1—epilepsy, 1—erysipelas, 2—exposure to cold, 1—scarlet fever, 3—typhoid fever, 4—gastritis, 1—disease of the heart, 5—hæmorrhage, 1—infantile, 2—intemperance, 1—disease of the kidneys, 1—disease of the liver, 2—congestion of the lungs, 1—inflammation of the lungs, 18—marasmus, 4—measles, 4—old age, 8—paralysis, 6—premature birth, 1—peritonitis, 2—puerperal disease, 1—pyæmia, 2—rheumatism, 2—suicide, 1—smallpox, 3—suffocation, 1—syphilis, 2—teething, 1—tumor, 1—unknown, 4.

Under 5 years of age, 56—between 5 and 20 years, 14—between 20 and 40 years, 36—between 40 and 60 years, 12—above 60 years, 34. Born in the United States, 99—Ireland, 33—other places, 20.

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Original Communications.

INTEMPERANCE IN NEW ENGLAND. HOW SHALL WE TREAT IT?

By Henry I. Bowditch, M.D. Read before the Boston Society for Medical Observation, Feb. 19, 1872.

At a recent meeting, I laid before the Society a chart illustrative of certain cosmic and social laws regulating the prevalence of intemperance over the globe. I was enabled to prepare that chart after carefully analyzing the statements contained in a correspondence that had been carried on between the Massachusetts State Board of Health and many persons (American ministers and consuls accredited to and resident in foreign countries, and some private persons of well-known ability), upon the all-important question of the use and abuse of alcoholic drinks. The correspondence was published in the last year's report of the State Board of Health of Massachusetts.

While preparing the chart, I had frequent conversations with the Chief of the Police of Boston and with others upon the working of the Prohibitory and License laws in New England. I then received some rather significant facts from this city, and as they will illustrate the apparently imperfect influence hitherto produced by legislation upon the prevalence of the vice of intemperance, at least in a large city like Boston, I propose to speak of them in continuation of my previous communication. I am well aware that, strictly, according to our rules the subject should not be presented in this form to the Society. But the subject is of so much importance, and intemperance is so constantly thwarting the physician in his treatment of disease, that any paper having for its object the mitigation of this great evil can be never wholly out of order in any medical society.

There are thousands in New England who have an abhorrence of intoxication, and yet they do not assent to the doctrines of either of the great parties now contending for total abstinence or its extreme reverse, the general free sale and use, as a beverage, of *every kind* of intoxicating drink. These persons ask of both parties what they can do to stem the torrent of intemperance; and they get little satisfaction from either. I cannot hope to do much toward a better solution of the problem, but I propose to lay before the Society facts above alluded to, which were given me by the Chief of the Police of Boston. Afterwards I shall give some general views as to the position which, I think, this community should take upon the whole subject of intemperance in New England. We need, I think, some law to restrain unscrupulous men from selling all kinds of liquor to all persons, but we must have laws that can be thoroughly executed, not only in small towns and over a sparsely scattered population, but which will have a benign influence over our large cities. Hitherto we have not arrived at this desirable end; for, notwithstanding all efforts, whether by total abstinence or license laws, drunkenness has increased, at least among the lower classes, in the large centres of business. In proof of the truth of this statement, let us look candidly at documentary evidence, and evidence which cannot be gainsaid. The Chief of the Police in this city writes in his last report the following words:—

"In looking over the comparative table of crime, one fact presents itself to the mind with peculiar force, and that is the alarming increase of the number of arrests for drunkenness." Of the 400,000 arrests during the last seventeen years, 225,000 were for drunkenness, besides some 28,000 "helped home for drunkenness," to say nothing of the 23,000 "assaults." "But the most startling feature is the steady increase of intemperance compared with the increase of the population." "Intemperance has increased in fourteen years one hundred and seventy-five per cent. in spite of law." In connection with this, it may be stated that I have seen tables prepared under the direction of chief of police, and from returns made by his subordinates, which indicate that the percentage of drunkenness and crime consequent on drunkenness was very large during the years 1861, '62 and '63, the first three years of the late war. During 1863 it was higher than in any year before or since that time. In general, it may be broadly stated that in 1854 the percentage to the whole population of those "helped home drunk," "arrested for drunkenness," or of "disturbances suppressed," almost all of which arose from intemperance, was 6·94; in 1863, it was 15·42, and in 1870, it was 12·01.

Again, it is a singular coincidence, to say the least, that in July, 1868, when the license law was in operation, there were *less arrests for drunkenness* than were made during either of the forty-eight months of the four years beginning Jan. 1866, and ending Dec. 31, 1869.* By dividing the months of the four years into classes, according to the prevalence of prohibition or of license law, we gain curiously significant and almost inexplicable results on taking the percentage of arrests for drunkenness to the whole population of the different years, which results are more clearly seen by the following table :—

Total number of Arrests for Drunkenness in Boston from June 1 *to May* 31, *inclusive.*

	Arrests.	Population.	Percent.	Law in force.
1866–7	5819	194,422	2.99	Prohibition.
1867–8	6085	196,654	3·09	Do.
1868–9	6817	230,988	2·95	License.
Last six months of 1869	4889	234,483	4·17	Prohibition.†

In other words, it seems to be a fact that, during the years when the license law prevailed, there were fewer arrests for drunkenness than previously under the prohibition law—and very much fewer than during the subsequent six months when prohibition was again in operation, with cider, it is true, allowed under certain restrictions. It is but right, however, to state that the annexation of Roxbury in 1868, whereby a large population, much of it rural, was added to the city, may have tended to lessen the percentage of that year.

While, therefore, it seems that neither prohibition nor license has had any real influence towards stemming this strong current of intemperance in Boston—still, in the estimation of many, a good effect has been produced in some of the smaller towns of the State, where the people have, by vote, decided that no liquor shall be sold. Such towns have occasionally become real asylums for the salvation of drunkards, who have risen to a proper self-respect and have determined to give up the use of intoxicating drinks, but fear that they cannot withstand the temptations of a large city. Judge Pitman, in his letter accepting a nomination for the office of Governor, states that to a certain degree similar results have been arrived at in New Bedford. But even there, from all that I can learn, there are many secret ways, whereby liquor can be obtained by those who wish it. There are no *open* bars, but it cannot, I think, be denied that there are *secret* ones in that city.* Again, in some towns, where there are large manufacturing establishments, and in which there are foreigners working, the same results occur. In some towns, the citizens have voted to sustain the Prohibitory law in its entireness and in town meeting have decided not to allow any liquor to be sold; nevertheless, in these very places it can be bought at every corner. For example, in two of the medium-sized townships of New England, intelligent physicians, long residents therein, and both of whom deeply deplored the existence of intemperance, told me a short time ago that drunkenness was never more rife than when, apparently, the Prohibitory law was in full force. One of them related this as an unundoubted fact. In the other town another informant told me that apothecaries who, *a few years ago,* were prosecuted when selling, as they believed, for medicinal purposes and with the most honest intent, could *now* sell as they pleased, even under the "*enforcement*"(!) of the Prohibitory law. I say enforcement, but as above stated, although the citizens of the town have voted that the law should be enforced, the selectmen do not in fact carry out that public vote, and the mass of the citizens *virtually* say "Amen."

Surely, there never was a greater attempt of a whole people to hoodwink itself, as it were. Such promulgation of law, and at the same time such utter and open, daily and, I might say, hourly contempt for it, tend to lower the political morality of each citizen consenting thereto, to corrupt the whole community, and, in fact, to bring *all* law into less repute among the masses of the people. Nothing, surely, can be more fatal to the best interest of a republic than such a state of things, however caused.

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* The Chief of Police informs me that, strictly speaking, until September, when licenses were first given out, there was neither prohibition nor license law in operation. The police, however, acted always under the same orders.

† Except cider under restrictions.

* Correspondents in whose honor and truthfulness and means of information I have entire faith, assure me of this being a true statement of matters at New Bedford.

The following fact also illustrates the results of prohibition in a large city:—

A gentleman, intimately connected with a large pauper hospital, informs me that whereas many were formerly brought in drunk, in consequence of liquor bought and used at the dram-shop, quite as many, if not more drunkards are brought in now, while prohibition is in force, but that each man has his own whiskey-bottle in his coat-pocket.

During a recent professional visit which I made to the eastern part of Maine, I asked of many persons at some stations where the train was stopped, and the uniform answer given was, "Liquor can always be obtained by any one who wishes for it." At one, at least, of the stations, ale was openly sold at open bars. One informant stated, while admitting the fact of the utter disrespect paid to the law, that he thought, although it was violated everywhere, the people would never grant a License law. I believe many thoughtful persons agree with him. Some claim, and, as I think, justly, that the State has no right to license, for money, the perpetration of any vice. To "*license*" one to sell all kinds of liquor is virtually licensing to do what will promote intemperance, that is increase a gross vice.

Thus we may say that, although in New England the law appears to be enforced in some places with tolerable success, so far as the open sale is concerned, it is not enforced at all in others. I doubt if anyone will contend that it prevents anywhere the obtaining of liquor by those who are determined to have it Meanwhile, as we learn from Boston that when there was the least law there were least arrests for drunkenness, and when some relaxation of the law allowed the use of milder liquors there was less intoxication than before, we have a right to ask whether similar results would not follow further relaxation, and whether the permission to sell light ales and beer, and light wines would not, under certain very general rules, really be a promotion of temperance.

As the Prohibitory law has thus failed of success, because the people do not sustain it, and, moreover, as no License law for the sale of liquor, has, as yet, commended itself to our citizens as being the best course possible, it remains to be seen whether some better plan may not be devised. I feel sure that the only foundation for our course in this matter is in as profound a study as we can make of the natural laws of the propagation of intoxication throughout the globe. That investigation I have made elsewhere as I have already hinted.*

Generally it may be stated that from letters received from several correspondents resident in foreign countries, already alluded to in the beginning of this paper, I have been able to present some proof of the existence of great cosmic and social laws governing the vice of intemperance. The result of my investigations and my thoughts upon the subject may be summarily stated in the following propositions:—

First. Stimulants of some kind are found to exist and to be used at times to excess in every quarter of the globe.† To use stimulants, therefore, seems to be one of the strongest of human instincts. As such it cannot be prohibited, any more than we can annihilate any other instinct. We can only curb it by reason or by law, if it transgresses the bounds of social life.

Second. Intemperance is very rare between the isothermal lines of 77° F. north, and south of the equatorial isothermal line of 82.4. It gradually increases on going northward (and southward probably), between 77 N. and S. and 50° isothermal lines, which is the area for the natural growth of the grapevine. It becomes very rife above 50°, and, moreover, it is of a coarser, more brutal character than in either of the two previously named areas.

Third. Intemperance produces little or no crime at the equatorial area, rarely in the middle area; whereas it is the great provocative of crime above 50 F.

Fourth. Race has immense influence on the prevalence of intemperance. For example, the English race has entailed on this nation the incubus of two centuries of drunkenness, inherited from one generation to another. England now overshadows Ceylon in the tropics, and Australia in the grape region, with these same habits, thus overriding all climatic law, at least for a time, till reason and conscience and wise laws can restrain it.

Fifth. In Europe and in the other grape-growing areas of the earth, mild wines are used freely from babyhood to old age, and they do not seem to produce a nation of drunkards.

Sixth.—Similar remarks may be made on lager beer and its effects.

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* Vide Third Report of the State Board of Health. Boston. 1872.

† It is true that Commodore Wilkes states that he did find one set of savages which had no stimulating drink.

Seventh. On the contrary, ardent spirits dwarf intellectually, morally and physically the nation that uses them to excess.

Eighth. Hence we should not classify all liquors as equally prejudicial to man. On the contrary, admitting a human instinct, we should allow the reasonable and free use of some stimulants and discourage the use of others.

Ninth. We should in this country cultivate everywhere the grapevine and permit the use of lager bier. We should open our ports to a free trade in mild, "unfortified" European wines, at least until we can make sufficient of our own to satisfy the necessities of our people.

Tenth. We should do everything we can to restrain the use of ardent spirits as a beverage, by moral suasion and if need be by stringent law. We should close "grog-shops."

Eleventh. Moral suasion and education in the horrors of intemperance, too much neglected of late, I fear, in our pursuit of law as a prevention of intemperance, should be inculcated.

Twelfth. Inebriate asylums should be established for the reformation of dipsomaniacs, and repeated drunkenness should be punished as a crime.

Thirteenth. The seller of liquor to a known drunkard should be signally punished, and the offender should be made to pay the expenses of crimes or injuries resulting from the intemperance of his victim.

Fourteenth. All adulterations of liquor should be punished signally and promptly as a high crime against society.

Fifteenth, and finally, it would be the greatest blessing to this community if by large coöperative work by capitalists, Holly Tree Coffee Houses could be everywhere opened. In these good food and good coffee and tea could be prepared cheaply for the people. These could be placed side by side by the two thousand grog-shops that now disgrace our city. Our correspondence proves that a great gain for temperance would be the result of such a movement.

A FATAL CASE OF OTORRHŒA.

By Geo. W. Gay, M.D.

Mrs. X., æt. 33, had scarlet fever when a child; this was followed by a purulent discharge from the right ear. With the exception of an occasional abscess in this ear, she has enjoyed fair health till the summer of 1870, when, soon after the sudden death of her only child, she began to have sleepless nights, and violent headaches, of a supposed neuralgic character. She was very melancholy, and in the early autumn the headaches became almost constant. She was in her fourth pregnancy. Her strength and appetite were poor and her spirits unusually depressed.

Dec. 27th.—I was called, and found her suffering from an ordinary attack of acute gastric catarrh. Nausea, vomiting, and a severe headache confined to the right side. Pulse, 70; no fever. Could not lie on right side, as headache was made worse. Had a blister behind right ear. She took small doses of bicarbonate of soda and oxalate of cerium for nausea and vomiting; had hot applications to head, and bromide of potassium at night.

Dec. 28th, evening.—Passed a restless night. Had a severe throbbing pain in right ear this A.M.; easier now. External meatus red, swollen and very sensitive to the touch. Can lie on right side. Nausea and vomiting subsiding. Sat up and had her bed made to-day. ℞ Quin. sulph. gr. j. 4 t. d. Liquid diet and bromide of potassium at night.

Dec. 29th.—Slept fairly. Pain extending all over head. Appetite increasing. Bowels constipated. Citrate of magnesia.

Dec. 31st.—Pretty comfortable till last night, when she had severe pain along right side of lower jaw; not much pain in ear. Pulse, 88; thirsty; stomach quiet. Beef-tea and wine.

Jan. 2d, 1871.—Had a good day yesterday and a comfortable night, but pain came on in right ear again this morning. She is chilly at times, and sweats some when asleep. Pulse 100, and of good strength. This P.M., she became excited by bad news, and pain in the ear became worse than ever; much relieved by chloral. Does not feel as strong as she did yesterday. Motions of fœtus active. Cold applications to head, and heat to feet. Stop quinine, as it seems to increase the headache.

Jan. 4th.—Has been afraid to take opiates on account of the nausea and headache, which have always followed their use, but yesterday morning she was persuaded to take an eighth of a grain of sulphate of morphia with one grain of oxalate of cerium, and she had an excellent day and night. This morning the headache began again, and the pain was most severe in occipital region. A slight purulent discharge made its first appearance from right ear to-day. Had a severe chill this P.M., followed by sweating and prostration. Syringe ear with a warm and weak solution of carbolic acid. Morph. sulph. p. r. n.

Jan. 6th.—Headache for past twenty-four hours has been much relieved by leeches to temples, followed by fomentations. Slept well last night. Pulse 100; some fever; skin hot, especially in palms of hands and soles of feet. No chills. Morphia, given when chills threaten, seems to modify and occasionally to entirely prevent them. Takes food and stimulants well. Bromide of potassium and ammonium at night.

Jan. 7th.—A little excitement this A.M. was followed by a severe chill. Quin. sulph. gr. j. every two hours. Milk, ice cream and wine.

Jan. 10th.—Has been fairly comfortable to-day. Pulse 110. Great prostration. Begins to complain of sore throat and difficulty in swallowing. Tongue dry, with a white, cheesy coat. Abdomen tympanitic. Uterus quiet. No motion of child felt for several days. Enema infusion of assafœtida. Ice to eat. Instead of wine, to have brandy and aromatic spts. ammonia.

Jan. 12th.—Easier yesterday, with pulse at 100. To-day, pulse 112. Prostration severe. Mouth and throat sore. Tonsils and adjacent parts red and swollen. Muscles of neck stiff and sore, but there is no swelling externally. No chills for some days till this morning. Slight cough, with frothy sputa. No physical signs of trouble in chest. Headache moderate and not confined to any part. There is still a slight fœtid discharge from right ear. No tympanitis. Continue food and stimulants.

Jan. 14th.—Pulse 108 in the morning, 120 this evening, and intermittent for the first time. Resp. 26 to 36. Was unconscious for a short time this P.M., but now is bright and hopeful No delirium or convulsions. Pupils contracted and sluggish. Comfortable—requires an opiate twice, daily.

Jan. 15th.—Pulse 108, fair strength. Respiration 20. At midnight, was attacked with a sharp pain in right shoulder, relieved by morphia. This pain came again this P.M., and electricity was tried without effect. No chills. Throat not so sore.

Jan. 17th.—Comfortable yesterday, but to-day began with a severe chill. She is exceedingly "tired" and restless. Whole body very sensitive to the touch. Palms and soles hot and dry, almost burning, and required constant bathing. Mouth and throat dry, and covered with aphthæ. Can open mouth to only about one-third the natural extent. Neck still sore and stiff. Headache mostly confined to occiput.

Jan. 18th.—Pulse 96 to 102; intermittent. Resp. normal; two chills last night, none to-day; there were indications of one, but a hypodermic injection of morphia and a whiff or two of ether quieted her. There is a hard, ill-defined swelling over right sterno-mastoid. No œdema or fluctuation. No more tenderness than over any part of head or neck. No swelling or tenderness over mastoid process. Can neither move her head nor allow it to be moved without great pain. Mouth and throat better. Restlessness is extremely severe when not under the influence of opiates. Headache better.

Jan. 19th.—Good night. Pulse 100. Temp. 102°. Tongue clean. Chill this morning. Dr. E. H. Clarke, called in consultation, suggested iod. potas. grs. v. t. d., and hydrarg. bichlor. gr. 1-30 t. d. Takes ice cream, brandy and beef-tea pretty well.

Jan. 20th.—Delivered, this morning, of a six months child, which showed slight signs of life. Labor lasted about two hours. Uterus contracted well. No hæmorrhage. Has had the most comfortable day she has seen for a month; none of that terrible restlessness which has troubled her so much. Pulse ranges from 100 to 120. Can open her mouth better, and takes more nourishment. Ear discharges a little occasionally; no pain in it. There is some muttering delirium at times. No paralysis or convulsions. Pupils alike, contracted, and slow to the stimulus of light; moderate photophobia. Sleeps considerably, and is refreshed by it.

Jan. 21st.—At 1, A.M., the old unrest came back again, worse than ever. Pulse 120 and weak; skin hot and burning; greatly relieved by olive oil inunctions. Lochia natural. To inhale chloroform occasionally when very uneasy.

Jan. 22d.—Much worse. Semi-conscious most of the time. Resp. moaning. She complains of pain all over body when roused, and especially on right side of head. No pain in ear for several days. Head drawn to right side. Right eye projects about a line; lid œdematous. Pupils same as usual. Kept quiet with chloroform.

Jan. 23d.—All the above symptoms aggravated. Groaning and screaming continually, when not under the chloroform. Takes stimulants and nourishment fairly.

Jan. 24th.—Conscious and comfortable for a short time this morning, then came the restlessness and pain as severe as ever, and she was kept under chloroform the remainder of her life. She died at 2., P.M., Jan. 24th, thirty days after taking to her bed. There was no paralysis of motion or sensation during her sickness, nor were there any convulsions. Dr. L. Richmond, of Derby Line, Vt., was with her constantly during the last two weeks of her life, and almost everything was tried which promised even temporary comfort. Opium and chloroform were her best friends. Chloral, bromide of potassium, belladonna, conium, cannabis indica, valerian and many other drugs were tried with very little benefit. There was no autopsy.

TWO CASES OF EXTRACTION OF A CYSTICERCUS FROM THE HUMAN EYE.

Shown at the Berlin Medical Society, Nov. 22, 1871, by Dr. J. Hirschberg. Translated for the Journal, by B. Joy Jeffries, M.D., from Virchow's Archiv, 1871.

The first case was interesting from the difficulty in operating, the second from the complete success of the operation. In the former the worm was deep in the vitreous, in the latter in the anterior chamber.

In the first part of November, 1871, a woman, 23 years old, applied to me. She was healthy and sound otherwise than that for the last year she had suffered from some defect of vision of the right eye, which at present allowed only fingers to be counted with difficulty at a short distance. The globe was unaltered, and in the still transparent vitreous I found a large, quite active cysticercus. As we know, such an eye must be lost, and there is even danger of sympathetic trouble in the other.[*] Thrice I have been forced to enucleate an eye holding a cysticercus, and thus had opportunity of demonstrating the anatomical changes produced by the parasite; and I have expressed the opinion that in all these cases, *when advanced*, this operation was preferable to attempts at extraction. In my present case, however, the conditions seemed sufficiently favorable, and the retention of the form and shape of the globe so important for the woman, still young, that I decided on extraction according to Graefe's plan.

The patient was lying, without anæsthetic, on the bed. I made the lower sclerotic section as if for cataract extraction, then did an iridectomy, opened the anterior capsule largely and evacuated the perfectly transparent crystalline fully and slowly. (Upon the last great stress should be laid.) I then let the patient sit up, and entered the vitreous with a little hook by which I drew, with great difficulty, the worm in its surrounding membrane forwards till it was seen by the eye. The patient's head was now bent downward whilst I depressed the edge of the wound, when the entozoon slipped out. The wound healed *prima intentione*. Now, on the thirteenth day, the eye is perfectly quiet and its form completely retained.

The second case is in a certain way important in reference to the topographical seat of the cysticercus. The presence of the worm between the lamellæ of the cornea was stated by Appia, based on a briefly related observation.[*] This, however, was doubted by competent authors.[†] My observation shows how an intra-lamellar (corneal) position of the worm may be simulated, when the animal, living free in the aqueous humor, occasionally fastens itself to the cornea. It is of interest also to notice that both parasite and host were relatively young—the former twelve weeks and the latter two years.[‡] (Comparing the size of the entozoon in this and the former case with the sizes given in my previous accounts, and we shall get an approximate idea of the relations of growth of the cysticercus in the human eye.)

In March, 1871, a small boy was brought to my clinic who had suffered from inflammation of the left eye for three months. The mother had noticed a white spot upon it for the last four weeks. The eye was unaltered in size and shape, but showed marked pericorneal injection, as in severe iritis, a disease as we know that scarcely occurs spontaneously at so early an age. The cornea was clear and its anterior surface regular. In its centre was a grayish spot of about 1‴ diameter, which lateral illumination showed to be a delicate spherical vesicle with central white spot. In front of it was certainly a thick layer of corneal tissue; whether a thinner layer also was behind it, could not at once be decided. The aqueous humor was muddy, the pupil small and still undilated three quarters of an hour after instillation of a solution of atropine. I attempted at once to extract the worm under chloroform. On applying the speculum, the worm changed its place and moved free in the aqueous chamber. Instead, therefore, of removing the anterior lamella of the cornea as I had intended, I made a linear cut below with a lance-knife in the cornea, and removed the neat little cysticercus, which at once projected its head-piece. With pressure bandage and atropine the wound healed in two days, and the eye showed no irritation. Vision is now at any rate (Nov. 22, 1871) normal. A slight anterior synechia next the unimportant scar is all that remains.

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[*] Compare this Archiv xlv. Also Knapp and Moos, Arch. for Eye and Ear, i. and ii. Also, Sitzung. bericht. berl. Med. Gesellschaft.

[*] Archives d'Ophtalmologie, par Jamain, July and August, 1853.

[†] Zehender's Handbuch, i. 228, Note 2. Weckers, Book i., 453. Appia's idea would not tally with the theory that the cysticercus germ reached the inside of the eye through the circulation. Compare the author's *resumé* of the literature of this subject in the Wiener Medic. Rundschau, Jan., 1870.

[‡] Graefe's Archiv., 12, 2, 174. He found in his 80 cases of intra-ocular cysticercus (among 80,000 patients) that the youngest host was 8 years old. I extracted a cysticercus from the lower lid of a child 3 years old. Berl. Klin. Wochenschrift, 1870.

Often as the cysticercus is with us found inside of the human eyeball,* yet curiously enough it is rarely seen in the anterior chamber. Graefe saw only three cases, and the number of successful extractions has, since Schott's noted communication, remained very small. Yet these cases are of great therapeutic value, since the eye, which otherwise is sure to be lost, may, by a simple operation done at the right time, be saved with certainty.

Reports of Medical Societies.

BOSTON SOCIETY OF MEDICAL SCIENCES.

EDWARD WIGGLESWORTH, JR., M.D., SECRETARY.

Dec. 26th, 1871.—The Society met at the house of Dr. Dwight, Dr. White in the chair.

Effects of Administration of Hydrocyanic Acid.—Dr. Amory read a paper to show that death from prussic acid intoxication was due to some other cause than simply paralysis of the muscles concerned in respiration, and suggested that this active poison produced some change in the physical character of the blood, whereby the vital functions could not be maintained.

This he proved by certain experiments in which the process of artificial respiration was continued until after the cessation of the heart's pulsation. He also called attention to the fact that the pathological appearance after death was different in those animals poisoned by prussic acid if artificial respiration was thus maintained. He noticed, also, that rigor mortis did not occur so soon after death in those animals poisoned by prussic acid, in whom artificial respiration was used, as in those animals in whom no artificial respiration was used. In this connection, Tardieu was quoted as affirming that rigor mortis occurred very soon after death in animals and men dying from a poisonous dose of prussic acid.

The details of these experiments were as follows :—

Exp. I.—Administration of acid. hydrocyan. dil.* (U. S.)—gtt. xv., or about a grain of the anhydrous acid—to a dog (20 lbs. weight), subcutaneously ; artificial respiration ; death ; *without ether.*

After tracheotomy, a flexible tube was inserted in the trachea of a dog, and the above dose then introduced under the skin on the inside of left thigh. In half a minute afterwards, symptoms of prussic acid intoxication, such as embarrassed respiration and muscular twitchings, were observed. Artificial respiration† was immediately instituted and maintained eighteen to twenty times a minute. During the next half hour slight symptoms of muscular spasms were observed only twice, and were entirely relieved by more rapid movements of the bellows. There was no dilatation of pupil nor protrusion of eyeball. Surface of skin grew gradually cooler, the cardiac pulsations weaker and more frequent, and sounds of coarse mucous râles became quite distinct. As soon as the cardiac pulsations became imperceptible (in about 22 minutes), the thorax was opened, and the right lung found contracting and expanding in accordance with each movement of the bellows. The left lung did not fully expand, for the tracheal tube had been pushed down below the bifurcation, thus giving air mostly to the right lung.

Post-mortem Appearances.—Ecchymotic spots quite marked in left pulmonary tissue, and but slightly on right side, and this only in the posterior portion. (The dog had been lying upon the back.) As soon as the artificial respiration was discontinued, the ecchymosis gradually increased. The walls of heart were relaxed, and the right ventricle contained dark fluid blood, the left ventricle bright arterial blood ; both auricles contained blood. The blood which oozed from cut pulmonary tissue was bright red. The lower and posterior portions of left lung were slightly œdematous. The calvaria and the vessels in the superficial membranes were slightly injected with blood ; in some this was dark venous, in others bright red.

No muscular rigidity occurred during three hours after death, and the body was then thrown away. This peculiarity of the early appearance of rigor mortis after death from prussic acid intoxication has been particularly mentioned by M. Tardieu.

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* Graefe in his Archive, xii., 2, 174.

† Hirschler, Arch. f. Ophth., iv., 1, 113.

* Should contain two per cent. of anhydrous acid.

† With machine for the purpose.

Exp. II.—Dog (30 lbs.); hydrocyanic acid dil. (U. S.) gtt. xv.; artificial respiration; *post-mortem* muscular contractility and nervous conductibility from the stimulus of induced current of electricity.

Tracheotomy, performed under the influence of chloroform and ether. As soon as the dog showed the first symptom of recovery from etherization, hydrocyanic acid dil. (U. S.) ʒ¼ was injected under the skin of the inside of the thigh. In less than a minute, signs of embarrassed respiration were observed, and as soon as these become quite marked, the artificial respiration by apparatus was commenced and continued for twenty-five minutes. At the end of twenty minutes from the moment of injection of the drug, the pulsations of the heart could not be distinguished; the thorax was then opened; the heart was flaccid and still, the right auricle and right ventricle both were filled with dark blood, as well as the superior and inferior venæ cavæ; the pulmonary veins, the left auricle and the left ventricle were all filled with light red blood. During the continuation of artificial respiration, and while the thorax was opened, the lungs were light pink while inflating, and pale while expelling air. At the end of twenty-five minutes from moment of injection, and five minutes after cessation of cardiac pulsations, the induced current of electricity was applied with one pole at the base and the other at apex of the heart. This was followed by irregular contractions and dilatations of both ventricles, and the rapid and systematic contraction of the left auricle, which continued for a moment after the removal of the electrodes. On again being applied, electricity was followed by the same movements, and this response continued for about twenty minutes, gradually becoming weaker and weaker. The contractility of the muscles could be excited for over an hour and a half after the thorax was opened, either when the electric stimulation was applied to nerves isolated on glass rods or to the muscular tissue itself. The liver was accidentally cut, and from it flowed dark venous blood in large quantity; and this blood on exposure to the air became bright red, and yet did not coagulate easily, though when the ventricles were cut open the right ventricle contained grayish black blood and partially-formed dark-red clots; the left ventricle contained bright-red fluid blood and a small clot. The lungs did not readily assume the congested appearance usually noticed after death from prussic acid intoxication or asphyxia; and it was only after handling and squeezing of the lung tissue that the static congestion occurred, and then only slightly.

Exp. III.—Experiment with artificial respiration after cyanic intoxication, on a small dog.—Tracheotomy performed under ether and a tube in trachea connected with apparatus for artificial respiration. Ether removed, and on appearance of consciousness, hydrocyanic acid dil. (U. S.) ʒ¼ subcutaneously injected in outside of thigh. Poisonous symptoms appearing in the course of a minute, artificial respiration was instituted, and maintained (20 inspirations and expirations a minute) for half an hour. During this time only three slight convulsions were observed, and the death occurred gradually and without any struggle. There was no dilatation of the pupils and no protrusion of the eye-balls. The heart continued its pulsations, gradually growing feebler and more rapid for twenty-five minutes, when it could not longer be perceived. The thorax was then opened, exposing the thoracic viscera. The right auricle was slowly contracting and dilating; each lobe of the lungs expanded and contracted in correspondence with the stroke of the machine for preserving artificial respiration. As the lungs became inflated, they acquired a bright roseate hue,* and on being exhausted became pale and exsanguine. No ecchymotic spot anywhere to be seen on the surface of the lungs. The blood from the arteries cut during the exposé of the thoracic viscera, was bright arterial red, that from the veins was venous and dark red. The ventricles of the heart were flaccid and full of blood. This condition of the viscera continued so long as the artificial respiration was maintained. The ventricles of the heart were opened, the right being filled with dark and the left with bright blood. Immediately following the cessation of artificial respiration, ecchymotic spots became noticeable on the surface of the lung tissue, and gradually extended, until in less than a minute the peculiar ecchymosis of the lungs observed in animals dying asphyxiated was evident, though not as marked as when artificial respiration had not been used. The right auricle had ceased its pulsations about the time of the cessation of the artificial respiration.

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* The arteries expelled their blood on exhaustion of lungs, and became filled on inflation.

No muscular rigidity occurred during the six hours succeeding the death.

In this experiment artificial respiration was not continued after cessation of cardiac pulsations.

SUMMARY.—From these experiments, viewed in the way they have been brought to notice, it would seem as if we could derive the following summary of the pathological action of prussic acid:

Artificial respiration does not prevent the intoxication of prussic acid, nor does it materially assist in the elimination of the poison. Consequently means directed to the institution of artificial respiration are unnecessary to the protection of life.

Artificial respiration will prevent the convulsions of muscular spasms which follow the absorption of this poison in a dose dangerous to life.

Muscular irritability and the conductibility of nerves are not prevented by the intoxication of this drug, when artificial respiration has been maintained until after the cessation of cardiac pulsations.

The static congestion of the pulmonary tissue is either a post-mortem symptom or is due to the asphyxia noticed as one of the causes of death produced by this poison.

The cause of death by this agent is something beside asphyxia, and it is suggested that the fundamental cause of death is due to blood poisoning, whether by altering the physical or chemical condition of the blood it is not my purpose to state.

The apoplexy in the encephalon and spinal cord noticed by Tardieu,* as an anatomical lesion due to the intoxication of this agent, is probably referable to the asphyxia, secondarily induced, and not to the direct action of this poison. The same condition has been observed in animals dying from asphyxia produced by other causes,† from nitrous oxide and from chloroform. When asphyxia is not produced by prussic acid, no very serious apoplexy or congestion is noticed in autopsies.

It is generally supposed by toxicologists that rigor mortis ensues very soon after death from hydrocyanic intoxication, viz., within two or three hours; whereas in these two or three experiments, *rigor mortis* did not take place for several hours after death. Brown-Séquard and Stannius, independently of each other, the former at Paris, the latter at Rostock, discovered that in the living animal *muscular rigidity*, similar in every particular with *rigor mortis*, could be induced in the lower portion of the body in two or three hours after arterial blood had been shut off from that portion of the body. These two experimenters both considered that rigor mortis ensued as the final vital action of muscular contractility. They found that the supplying of the muscles in their state of rigidity with oxygenated blood would again relax the spasm, which relaxation would continue so long as this artificial supply was kept up, even though the temperature of the injected blood was 20°F. below the normal temperature of the living animal. In men killed suddenly by an accident, such as a bullet wound in the brain, after a period of active muscular exercise, rigor mortis ensues in a remarkable short time after death. In those who die from a lingering or exhausting disease, such as phthisis, rigor mortis does not set in very soon after death.

In men and animals, previously in good health, suddenly killed by a poisonous dose of strychnia and prussic acid, rigor mortis sets in quite speedily after the cessation of life. May it not be that a carbonization of the blood, and an engorgement of the vascular system with deoxydized blood, predisposes to the early appearance after death of rigor mortis?

In my experiments there was little, and in one case no tendency to convulsions previous to death, and death was not preceded by muscular spasms. Was this not due to the continuation of artificial respiration until the cessation of cardiac pulsations?

In answer to Dr. White, Dr. Amory stated that he had experimented some forty to fifty times with this drug, and where artificial respiration was not employed, muscular spasms had always preceded death.

Termination of the Optic Nerve Fibres.—Dr. Jeffries then gave, by means of enlarged illustrations and diagrams, an account of the present knowledge of the termination of the optic nerve fibres in the retina of men and animals as interpreted by Max Schultze. Dr. Bowditch asked if the rods and cones were possessed of distinct functions.

Dr. Jeffries thought that the cones were concerned in causing the perception of color, thé rods, however, not.

Supposed Identity of Vegetable Parasites.—Dr. White read a paper upon the supposed identity of vegetable parasites and their relation to common moles, and showed under the microscope a specimen of the result of favus spores implanted upon his his own arm according to Peyritch's method. At his request the secretary also showed his arm with several well-marked favus cups growing upon it, the products of spores similarly implanted. [See Third Annual Report of State Board of Health.]

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* Etude Medico-legale et Clinique sur l'empoisonnement, p. 1036. J. B. Bailliere, Paris, 1867.

† Tardieu Etude Med. Leg. sur la Pendaison, pp. 260-307, &c.

Selected Papers.

ON THE USE OF BAVARIAN APPARATUS IN THE TREATMENT OF FRACTURES.

By A. H. Corley, M.D., F.R.C.S.I., &c.

Some months ago I introduced to the notice of the Medical Profession in this Kingdom a new method of treating fractures of the long bones. * * * An apparatus which enables us to dispense with the use of splints, which permits us to inspect daily, if necessary, the state of the fractured limb, and which allows the patient to escape the wearisome necessity of six or eight weeks unchanging "dorsal decubitus," must quickly, when properly understood, supersede for ordinary cases every other method of treatment.

The appliances are few and inexpensive. A yard of the cheapest flannel, a pound or so of plaster of Paris, a few large pins with their heads bent, and a piece of calico or common roller make the surgeon independent of the surgical-instrument maker. The flannel is cut into two rectangular pieces the length of the fractured bone, and broad enough to encircle the limb and to leave a margin. One is a little wider than the other. Placing the narrow one evenly over the other they are sewn together by longitudinal stitching down the mesial line. They now resemble two sheets of note paper stitched together at the fold, the outer a little larger than the inner.

Raising the fractured limb carefully the flannel is to be spread smoothly under it, taking care that the line of sewing corresponds to the posterior mesial line of the limb. The two ends of the inner sheet are now brought evenly over the limb and fastened together by means of the bent pins, leaving the two outer half sheets spread on the surface of the bed. By extension, counter-extension, and manipulation, exact coaptation is secured, and now the plaster, mixed to a proper consistence with water, is partly smeared and partly poured on. The two outer sheets of flannel are rapidly brought over the surface of the plaster (which is now caught on both sides between the inner and outer layers) and are held together at their margins till the plaster sets, taking care that the extension and counter-extension are kept steadily up during that period. The pins must now be taken out (and it is for this purpose that their heads are bent), the edges trimmed, a few turns of the roller being applied, and the entire operation, which does not occupy ten minutes, is finished. Muscular spasm at once ceases, the patient acquires the power of shifting his position, and a steady equable lateral pressure is secured, adapted exactly to the shape and inequalities of the limb.

Should it be necessary to maintain any peculiar position, as in the treatment of Pott's and Colles's fracture, the assistant holds the limb while the plaster is setting, and a firm, rigid case is at once secured, exercising uniform pressure, incapable of slipping, and maintaining the fractured ends in steady apposition. But the most important advantage connected with this apparatus is the facility with which it may be taken off. Most plaster and starch bandages are not only troublesome to apply, but so difficult to remove, that there is a strong natural tendency on the part of the surgeon to leave them on, and trust that the bones are uniting properly. I believe I am not the only surgeon who has seen, when the bandages are cut, certain peculiar angles and curves in the limb that Nature never intended to be there. Again, there are certain fractures, as compound ones, &c., in treating which we must keep a portion of the limb in such a way as to be readily examined. In the Bavarian apparatus, when the bandages are loosened, the two opposite sides can be separated, like the bent covers of a book, the line of stitching (which prevents the running together of the plaster) acting like the back or hinge of the book, and allowing the limb to be exposed or to be taken out if necessary. If the swelling, usually present at first, diminish very much, the anterior edges can be trimmed so as to allow tightening, or the whole case may be taken off and lined with cotton. I have used it *immediately* after accidents, and the only cases where I should defer its application are those of fracture from direct violence where there is such contusion that even the most equable pressure would be contra-indicated. I have used it with success in fractured femurs, tibia, fibula, humerus, radius, ulna, as well as with Pott's and Colles's fractures, and have seen it used equally successfully by my colleagues. It is, however, with special reference to its efficiency in the treatment of Pott's fracture, Colles's fracture, and fracture of the shafts of the femur, that I now wish to speak. Everyone knows the difficulty of treating the first of these very common accidents. I have tried Dupuytren's splint applied with care by myself, and have had the pleasure in a day or two of finding the splint slipped round to the back of the limb, a circumstance highly calculated to allow the fracture (to use the time-honored witticism) to turn out remarkably well. I have used the same splint, placing the limb after its application in a box, and I have used the box alone, trusting to padding to keep the proper position. I have secured *tolerably* favorable results, but only by means of constant trouble, frequent readjustment, and exemplary patience. When the Bavarian apparatus is applied there is no further interference necessary, the patient can at once lie on his side and get up to sit in a chair in two or three days.

With Colles's fracture I have tried how the plaster apparatus would suit, and have every reason to be pleased with the result. In applying it in this fracture, I place a pad of cotton over the dorsal prominence, and hold the hand strongly adducted till the plaster is set. In the two cases of fractured femur which I have treated in the last six months I have secured such admirable results, and with such comfort to the patient, that I shall dwell at some length on the accessories to its successful use. I have always been under the impression that if in this fracture the ends of the bone could be got fairly into apposition and *kept together* by equable lateral pressure, there would not be the great necessity for extension and counter-extension now presumed to exist. The long splint, which enforces a constant recumbent attitude, and the use of a perineal band, has been felt to be such an imperfect mode of treatment, that dozens of modifications of it have been proposed, of which a few trials have convinced surgeons that the proper apparatus is still a desideratum. Counter-extension by the perineal band is particularly objectionable from its pressure, from the irritation or even ulceration so likely to be produced, especially in children, and from its tendency in fractures high up to increase the deformity.

With the plaster apparatus the necessary lateral pressure is produced, and the only requisite afterwards is some means by which slight extension and counter-extension can be kept up, less I believe for the purpose of producing any effect at the fracture than for preventing the motions of the patient's body (which I freely allow) from disturbing the position of the fractured ends. Having adjusted the apparatus, I apply two long strips of soap plaster to the opposite sides of the leg, uniting them in a loop below the foot; to this loop I fasten a cord, which passes over the foot-rail of the bed, and has a weight dependent. This is the extension. I then raise the lower end of the mattress so that the feet are considerably higher than the pelvis, and the body forms the counter-extension. After the second day, I found in both my cases that the patient could sit up to eat his dinner, &c., without increasing pain or disturbing his limb in the slightest degree.—*Medical Press and Circular.*

Medical and Surgical Journal.

Boston: Thursday, March 21, 1872.

CONVALESCENT HOMES.

The objection which is repeatedly urged against the public charities of our large cities, that they are grossly abused by those who receive their benefits so freely, has in it much of plausibility. There can be no doubt in the mind of any physician who has ever been connected with an institution for the dispensing of gratuitous medical counsel that the relative number of really deserving recipients is far short of that intended by the benevolent spirit in which such institutions were founded. It would be a curious study to follow the wanderings of certain knowing "charity patients" from one shrine of Hygeia to another in search of health and in the hope, doubtless, that "in the multitude of counsellors there is safety." This abuse of kindness does not surely show a tendency to diminish. It is the opprobrium of public charities in all cities, and it has taxed the ingenuity of those having such organizations in their charge to devise some method whereby the deserving poor should receive the good offices intended for them, to the exclusion of the vagrant cheats.

Meanwhile the state of things alluded to is used as an argument by many for the abolition of such extended gratuities; and, on the ground that the free dispensing of medical charity works ill both as regards the patients, to compromise their independence, and for the medical profession to impair its dignity and to cheapen its service, it is urged that the agencies for the distribution of medical counsel should be curtailed and not extended. Yet we question if the wisest discrimination would not find it difficult to decide where to begin the reform, or which, for example, of the seventy institutions in this city—hospitals, homes, dispensaries, infirmaries and charitable associations—should be sacrificed as needless.

With a view to indicate one method in which the usefulness of the many institutions may be supplemented and confirmed (without, however, intending to favor their further multiplication on the plan of organization at present in vogue), and in the conviction that there is a real need in the direction to which we shall allude, we desire to say a word concerning convalescent homes or sanitaria. The subject is not a new one, for since 1840 the usefulness of the homes for convalescents has been practically and successfully tested in England; and at present very few of the cities and larger towns in that country are without such an establishment. How highly these institutions are esteemed, may be seen by the repeated allusion in the medical periodicals to their successful administration. In our own country, scarcely any attempt has been made toward founding such sanitaria. In this vicinity very little has been done either in the way of planning or execution. The Second Report of the State Board of Health contains a description of the English establishments and an emphatic appeal for their organization in Massachusetts. The Children's Hospital foundation embraces the prospective idea of a convalescent home in the country as a part of its scheme of usefulness. The only practical attempt, however, to carry the plan into operation in this city, so far as we know, is the case of St. Luke's Home in Florence Street, and the success of that undertaking, now in its second year, is reported as gratifying and encouraging.

The purpose and theoretical character of convalescent homes are sufficiently suggested in the name. They are supplementary to hospitals. The visiting staff of any large hospital need hardly be reminded of seasons when the crowded condition of the wards enforces the premature discharge of patients whose half-healed wounds or scarcely commencing convalescence must yield the ground for the admission of still more urgent cases; or of seasons of less urgency when cases of prolonged convalescence from acute disease await almost indefinitely the moment when the needy patient may safely resume work, to anticipate which moment and to send out the patient too ill to commence his work, though apparently too well to longer cumber a hospital ward and consume its larder, would be to induce a relapse of the disability. For such contingencies as these, the convalescent home affords relief. And not for these alone. Physicians in the cities almost daily meet with cases in their private practice which need not so much the administration of drugs, however wisely ordered, or the benefit of a hospital, however liberally bestowed; but restoration to health depends on removal from the city and on the abundant supply of pure, country air, and of fresh country food—elements furnished in no hospital and in but few homes in crowded centres. To the numerous middle class of the people, whose capital is health and whose livelihood depends on this capital well preserved, the privilege, in case of sickness, of such a change from the depressing confinement of poor city homes to the freedom and the free air of the country would be an inestimable boon, and hardly to be compared with any other means of restoration.

The prime essential of a convalescent home, therefore, we esteem to be its establishment beyond the crowded city limits. This condition being granted, other details will adapt themselves. The institution need not be founded on a basis of luxury, for the idea of a home is not essentially dependent on the wealth it represents. The buildings may be plain and inexpensive, the administration economical, the regulations liberal. The fundamental idea and purpose being kept in view, that such an institution is for convalescence—not a hospital, not a resort for incurables or for special diseases, not a centre for malingering, but a temporary home for the deserving poor, who are too sick to work and too well to be bedridden—and other conditions readily suggest themselves for the practical and easy execution of such a scheme.

Such an institution is much needed for this city, and it is high time that the matter should be agitated. Its beneficence cannot be gainsaid ; its feasibility is obvious in a community whose pride is in its progressive liberality.

Intemperance in Massachusetts. — Although the general character of the leading article in the present number of the Journal will doubtless appear to many of our readers as hardly consistent with the spirit and purpose of a strictly scientific periodical, and as savoring very much of studies and discussions of an extra-professional nature, we feel that the matured opinions of the author will be perused by physicians with interest, and as in no small degree compatible with true medical progress. At a time when, both in our own country and in England, the subject of intemperance is a topic of serious not to say enthusiastic consideration in its bearing on public welfare, the medical profession should not stand aloof from the matter, since upon it rests the responsibility of pointing out to what extent great social evils affect the public health. The profession in England has declared itself, and the declaration, already presented in our columns, has excited great discussion within and beyond the medical ranks. Apart from any political or social elements in the question of intemperance, its strictly medical bearings merit profound consideration, and any sincere attempt to solve, from a scientific point of view, a problem which has defied the efforts of philanthropists, politicians and law-makers so long, will, we are sure, attract the attention of our readers. Concerning the inherent merits of such attempts we leave it to the judgment of others to determine.

A new Medical Journal.—We are informed that it is proposed to issue shortly a new periodical at Washington, D. C., to be entitled "The Washington Medical Monthly." The Editors will be Drs. S. C. Busey and William Lee, whose recent treatment as Editors of the *National Medical Journal* at the hands of their publishers, we took occasion to notice in our last number. We wish for the new scheme the best success.

Female Students at Edinburgh.—The irrepressible Miss Jex Blake and the tormenting questions of policy or of justice or of both of which that lady may be deemed the representative, still continue to vex the Faculty of Edinburgh University. The persistence and imperturbable courage, and the tact withal, which have characterized the repeated attempts to gain the point at issue, and to gain it absolutely and with no time-serving compromises, must have won the admiration of those who have regarded the progress of medical events at Edinburgh in their relation to the woman question, of those, even, who would not own themselves favorable to the feminine side of the controversy. The latest phase of the struggle is the offer of the University to approve of the selection of certain extra-academical teachers under whose tuition Miss Blake and "the other ladies" may finish their medical education ; but this arrangement "does not imply any right in women to obtain medical degrees and does not confer any such right."

The medical students (of masculine gender) do not like this and other concessions to the ladies, and recently they indulged in a "demonstration" expressive of their feelings. To the number of three or four hundred they marched in procession through the streets, taking the houses of the Professors on the route and cheering or hooting the occupants according to their known predilections on the woman question. Finally the students went to Miss Blake's house, and although they pulled the door-bell with much vigor, the lady did not deign to acknowledge their presence. The *Lancet* in commenting on the affair observes :—"Such conduct is simply disgraceful and must ere long prove disastrous to the Edinburgh School."

The ringleaders of the demonstration

were presently sought out and punished with expulsion and the imposition of a fine.

REMOVAL OF AN INVERTED UTERUS WITH AN INTRA-MURAL FIBROUS TUMOR.—The *Med. and Surg. Reporter* for Dec. 2d ult. contains the report, by Dr. Thomas Hay, of Philadelphia, of a case presenting some remarkable elements in its history and treatment. The subject of the sketch was a married woman, 32 years old, and a primipara. The history of the labor and of its convalescence contained nothing noteworthy, save that parturition was somewhat tedious and was terminated by means of forceps. Twenty-one months after confinement, and five months after the weaning of the child, the patient was attacked with profuse flowing, the result of heavy lifting; the attack confined her to the bed for several days. Subsequently there was menorrhagia, and after a year of this the flowing became pretty constant, regardless of the menstrual periods, the hæmorrhage being at times quite alarming, and accompanied with acute forcing pains. At the end of a year and a half after the first flowing, the patient was seized with agonizing, labor-like pains, which continued twenty-four hours, till "something seemed suddenly to come away," and relief followed. The pain gradually disappeared, although the hæmorrhage continued in lessened amount, accompanied by a vaginal discharge of sanious pus. In consequence of all her sufferings, the patient became greatly reduced and almost exsanguinated.

Coming under Dr. Hay's care, the patient was found to be in a critical condition from the constitutional effects of her disorder. Examination discovered the vagina to be completely filled by a pear-shaped tumor, whose size prevented any satisfactory exploration of the parts without an anæsthetic. The tumor could be felt in the lower abdomen, and its mobility was easily determined. From above, a funnel-shaped opening was readily detected through the abdominal parietes. The neck of the tumor, high up in the vagina, was found to be nearly surrounded by the os uteri, and the sound introduced into the cervix penetrated to about half an inch. These data and the history of the case determined an inverted uterus.

After certain preliminary treatment, with a view to improve the general state of the patient, Dr. Hay operated for the removal of the tumor by ecrasement, the section being made just below the os, after considerable difficulty in adjusting the chain to the parts. The opening into the peritoneal cavity after the operation easily admitted the passage of four fingers. To guard against hæmorrhage after the abscission, a globular sponge, saturated with Monsel's solution, was passed up against and partly into the os; the parts contracted speedily, and after twenty-four hours the cervix scarcely admitted the index finger.

Convalescence was rapid and without any complications of consequence. After three weeks, the patient sat up in bed, and in the sixth week she was able to go up and down stairs and could walk or ride without fatigue. At regular periods, subsequently to the operation, corresponding to the catamenial epochs, there was an apparent attempt at menstruation, with a very small flow of blood, lasting twenty-four hours, and attended with uneasiness and pain in the back. The conjugal relations were fully restored.

The tumor weighed fifteen ounces, avoirdupois, and measured six and a half inches long and twelve inches in circumference. The cavity of the inverted uterus was two and a quarter inches deep. In the parietes of the fundus there had been developed an interstitial fibroid growth, whose covering of uterine tissue had become much attenuated from distension and pressure. This incidental growth greatly modified the pathological appearances as compared with those usually observed in inverted uterus, and served also to complicate the operation to a marked degree.

MALINGERING EXTRAORDINARY.—An instance of feigned disease which, as regards skill in simulation and successful execution, may be considered unique, has recently transpired in London and is reported at length in the *Lancet* for February 17th. The subject was a well-educated and intelligent man of 43. He usually assumed the *rôle* of a physician, and generally gave a straightforward history of his case for the time being and of his social antecedents. On one occasion his reputed relationship to Dr. Marshall Hall passed unchallenged. He successfully duped eleven of the hospital surgeons and physicians in London, some of them men of eminence. His object in carrying out the deception was never discovered. He passed successively from one hospital to another, remaining sometimes till he was pronounced convalescent, at other times taking sudden leave when suspicion appeared to be aroused to a degree too unpleasant.

His success at simulating was confined to the graver nervous affections, a department of pathology one would think ill adapted to malingering. He was treated for tetanus, for hemiplegia, and for ingravescent apoplexy, and his imitations of symptoms were so perfect as to entirely blind his medical attendants. He learned at one hospital points in his disease to be improved upon at the next; his tongue was at one time protruded too straight to conform to the paralytic condition he otherwise presented so well; at the next stopping place the lingual deviation was correctly assumed. At one time he suffered from traumatic tetanus, but the surgeons could find no cicatrix about the scalp to recall the alleged fall of forty feet some years before; the next time he has tetanus there is a distinct scar. His temperature arose once to 102° Fah., as it should; it was some time subsequently discovered that he had slyly placed the thermometer bulb near the candle flame when it should have been in his axilla. His first attempts at opisthotonos were wanting in rigidity of the abdominal muscles; he profited by the suggestion, and at the next hospital his tetanus was attended with spasms which made his abdominal muscles "as hard as boards." Night or day, he never forgot to carry out the simulated symptoms. In one hospital he had tetanus for ten days, and although a carbuncle, *which he did not feign*, came on the back of the neck and was freely opened without an anæsthetic, the tetanic opisthotonos was not meantime neglected. Treatment did not discourage him, and the variety of therapeutics to which he was subjected was heroic and was heroically endured. Opium and morphia were administered by the stomach and the rectum and under the skin. Calabar bean, belladonna, bromide and iodide of potassium, chloroform and hydrate of chloral were given in enormous doses to control his paroxysms. Ice-bags and ether-spray to the spine were also duly tried. He was watched with at night by diligent students enthusiastic to study the natural progress of tetanus; he was made the subject of a clinical lecture on "arachnoid hæmorrhage" before a medical class; and the notes of his case in the hospital case-books were always voluminous as the urgency of his disease appeared to demand.

Perhaps the one thing which, with the patient himself, acted as an offset for the severe treatment to which he was subjected was the sympathy which his misfortunes always elicited. A medical man, attacked with such grave disease, generally without warning and in the street, and brought to the hospital in a helpless state, called forth special commiseration; he was given good quarters, usually a private ward, and good food and stimulants were not withheld. On one occasion, he was believed to be incurable; a solicitor was sent for, and the pseudo-doctor made his will, bequeathing a handsome sum to the assistant-physician and to the hospital; this thoughtfulness on his part resulted in special comforts from the hospital authorities, including the best of wines and of food.

The period of this arch impostor's performances extended over nearly four years, and under his successive aliases comprised such Hospitals as St. Bartholomew's, Middlesex and St George's.

The *Lancet* remarks editorially on this case: "How many hospital statistical tables he must have falsified in his time! What a God-send such a patient would prove to the man with a firm faith in some new theory of disease and bran-new remedy for its cure!"

THE *British Medical Journal* gives the total number of students registered at the London hospitals during the present season as 1,468. New entries, 468.

Medical Miscellany.

Medical Honors.—As an appropriate acknowledgment of the devoted services of the physicians in attendance on the Prince of Wales during his recent attack of typhoid, Her Majesty, Queen Victoria, has made Sir William Jenner a K.C.B. (a distinction hitherto reserved for military or political services), and has conferred the baronetcy on Dr. Gull.

Incontinence of Urine in Children.—Mr. Holmes Coote recommends for this intractable affection the administration of creasote in one-minim doses, three times daily, combined with assafœtida and rhubarb pill, of each two grains.

Extraction of Cataract, in a Patient Ninety-eight Years of Age.—In the *Michigan University Medical Journal* for Jan., 1872, Dr. Eugene Smith, of Detroit, reports a case in which cataract was successfully removed by Graefe's peripheric linear method, the patient being in his ninety-ninth year. The operation was done without an anæsthetic.

The First Number of the Catalogue, designed to aid physicians in Boston and vicinity in discriminating in the matter of credit, is upon our table. The merits of the work are obvious.

Contagion by Volatile Virulent Matter.—The Academy of Sciences of Paris heard (July 10th, 1871) a paper of M. Chauveau, of Lyons, the eminent veterinarian, describing experiments which prove that the fluid evaporated from virulent matter fails to convey diseases by inoculation, whilst the matter itself succeeds. M. Chauveau concludes that the contagious principles are not floating in the atmosphere in the shape of gas or vapor, but that they are always adherent to some solid matter which is taken up by the gastric mucous membrane. Contagion at a distance takes place in this manner. In the rinderpest, for instance, the conveyance of the disease is more frequent and more rapid in confined spaces than in the open air. One of the experiments is performed thus: virulent matter is poured into a capsule, which is placed on a piece of glass, and the whole covered with a transparent bell. Under the glass is a sand-bath, which promotes gentle evaporation. To facilitate condensation the bell is covered with cotton wool, on which ether is now and then dropped. Some fluid now fixes on the inner aspect of the bell, and is obtained by means of a pipette. The liquid is then inoculated, as also the actual virulent matter in the capsule. The effects with the latter are positive, and negative with the former.—*Lancet.*

W. Pitt Brechin has been appointed Assistant Surgeon at the Mass. Eye and Ear Infirmary, to commence March 1, 1872.

Cold Water for Chancres.—Dr. Hémard (in the *Memorabilien*) asserts that for twenty years he has used, and always with success, no other treatment for chancres and chancroids than thorough washing with a stream of cold water every three or four hours. Sometimes he medicates the water with a little chlorate of potash or carbolic acid. In a few days the ulcer changes its appearance, and then he covers it with a thick layer of collodion, and it heals rapidly. The water should be poured in a narrow stream with some force.—*Phil. Med. and Surg. Reporter.*

To Correspondents.—Communications accepted:—Prolonged use of Hypodermic Injections of Morphia.—The Roosevelt Hospital.

Dr. O'G.'s remittance received from abroad.

Pamphlets Received.—Note sur l'Emploi du Sulfate de Quinine comme Succédané du Seigle Ergoté, par M. le Docteur E. Bouqné, Membre Titulaire de la Société de Médecine de Gand.—An Address before the Waco Medical Association, by D. R. Wallace, A.M., M.D., Retiring President, and President of the State Medical Association of Texas. Pp. 16.

Married,—In Cincinnati, Ohio, Dr. C. E. Brown-Séquard, of Paris, to Miss Maria R. Carlisle, of C.

Died,—At Hanover, N. H., Dr. T. R. Crosby, Professor of Natural History in Dartmouth College.—At San Francisco, 15th inst., Dr. Jonathan Letterman, Medical Director of the Army of the Potomac during the greater part of the late war, late Surgeon-General on the staff of Gov. Haight, of California, and coroner of San Francisco.

Deaths in eighteen Cities and Towns of Massachusetts for the week ending March 16, 1872.

Cities and Towns.	*No. of Deaths.*
Boston	127
Charlestown	12
Worcester	27
Lowell	19
Milford	6
Chelsea	2
Cambridge	14
Salem	16
Lawrence	13
Springfield	3
Lynn	17
Gloucester	7
Fitchburg	3
Newburyport	7
Somerville	5
Fall River	15
Haverhill	5
Holyoke	4
	302

Prevalent Diseases.	
Consumption	58
Pneumonia	49
Scarlet fever	11
Typhoid Fever	7
Croup	6

Eight deaths occurred from smallpox; four in Boston, three in Gloucester and one in Fitchburg.

George Derby, M.D.,
Secretary of State Board of Health.

Deaths in Boston for the week ending Saturday, March 16th, 127. Males, 61; females, 66. Accident, 5—apoplexy, 2—inflammation of the bowels, 1—bronchitis, 5—congestion of the brain, 1—disease of the brain, 6—cerebro-spinal meningitis, 1—consumption, 18—convulsions, 2—croup, 1—cyanosis, 1—debility, 5—diarrhœa, 3—dropsy, 1—dropsy of the brain, 2—eczema, 1—erysipelas, 1—scarlet fever, 4—disease of the heart, 3—disease of the kidneys, 1—disease of the knee-joint, 1—disease of the liver, 4—congestion of the lungs, 5—inflammation of the lungs, 14—marasmus, 6—measles, 3—old age, 5—paralysis, 2—premature birth, 1—puerperal disease, 5—pyæmia, 1—rheumatism, 1—scrofula, 2—smallpox, 4—spine disease, 1—suicide, 1—tumor, 2—unknown, 4.

Under 5 years of age, 46—between 5 and 20 years, 14—between 20 and 40 years, 28—between 40 and 60 years, 17—above 60 years, 22. Born in the United States, 86—Ireland, 30—other places, 11.

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Original Communications.

A CASE OF BRIGHT'S DISEASE OF THE KIDNEYS, WITHOUT ALBUMINURIA.

By Reuben A. Vance, M.D., New York.

It has long been known that certain diseases which implicate different bodily organs may present, as part of their phenomena, symptoms which, when considered alone, would seem to indicate the various forms of cerebral disease. This fact especially has tended to make the diagnosis of cerebro-spinal disorders one of the most obscure and difficult problems in practical medicine. The effect of various poisons introduced into the blood in producing abnormal manifestations of cerebro-spinal phenomena is so common as to have doubtless come under the observation of all my readers and need not be dwelt upon here. The effects of alcohol, hashisch, opium, &c., are well known; yet the fact that their different stages display in a brief period of time the symptoms and physical manifestations of diseases which are of a different origin, pursue a different course, and are in no way related to the causes which are in action in the former class of cases, is not so well known. The same is true of organic diseases affecting different parts of the body. The delirium of pneumonia and the essential fevers, the exaltation of mind in phthisis and the melancholia of cancer, are familiar examples. Among those diseases which primarily implicate organic structure and secondarily modify the quantity or quality of the circulating fluid, none are of more importance than those affections of the kidneys which are ordinarily known as Bright's disease. There is no organ in the body which is not affected by the changes which this disease produces in the blood, and there are few cases which present themselves to the physician in which it is not desirable to determine the presence or absence of this pathological state. In cerebral diseases this is notoriously the case, and it is always necessary, before ascribing any obscure nervous symptom to disease of the organ manifesting it, to be accurately informed as to the state of the kidneys—the presence or absence of albumen in the urine and the existence or non-existence of nephritic casts.

The ordinary method of determining the existence of kidney disease is by testing the urine. In this way results are obtained which are of the greatest importance in pathology and treatment. Various methods have been devised to aid the practitioner in this task, some of which are cumbersome and some simple and expeditious.* Whatever the plan adopted or the apparatus employed, the object to be attained is simply the determination of the existence of certain abnormal ingredients in the specimen of urine under examination. In the vast majority of cases of kidney disease the urine will reveal evidences which will settle the case in one way or the other. Yet that such is not always so can be seen, by the following case, which I have reported at length on account of its close resemblance to well-known forms of brain disease.

Some months since, a gentleman engaged in a wholesale business which had been greatly embarrassed by the Chicago fire, called at my office, complaining of wakefulness, headache, vertigo and confusion of ideas. He was continually harboring disagreeable thoughts, and could not obtain rest either by day or night. The ideas he entertained relative to the feelings of his friends towards him were grossly erroneous, and although he would admit his mistake when expostulated with by them, yet an hour or two subsequently he would find himself in the same old disagreeable, doubting, distrustful state of mind. His sleep was unsound and greatly disturbed by dreams of a grotesque rather than a disagreeable nature. Late in the afternoon and during the evening he was subject to vertigo, which would often become so severe as to cause him to fall to the ground. Unable to sleep, he would occasionally walk the streets until quite late, and on one occasion during an attack of vertigo was arrested and taken to the station-house before the officer discovered that he was not dealing with a drunken man. He suffered greatly from depression of spirits and lost interest in many of his former pursuits. He was conscious of the gravity of these symptoms, and had resorted to a number of measures designed to relieve his wakefulness for several weeks before calling on me. As time passed, his sufferings became more and more severe. His facial expression changed, and in his whole appearance he was much different from what he had been the year before. He now complained of dimness of vision, and found it difficult to read his paper or write up his books. A distressing *tinnitus aurium* developed itself, and was especially annoying at night. His feet would "go to sleep" almost as soon as he took his seat in a chair, and he noticed that this symptom came first in the right foot and persisted there after it had disappeared from the left leg. In attempting to write for any length of time he was compelled to stand, and of late he has noticed a sensation of pricking and tingling in the ring and little finger of the right hand when he has been working steadily with his pen. A sensation of extreme cold in the outer part of his right leg, extending from just below the knee to the ankle, developed itself a short time since and has caused him great discomfort. His walk is less secure than formerly, and his right foot has a tendency to drag. His handwriting has undergone a change, and, from being a bold, firm style, is loose and straggling, and occasionally illegible. His friends notice that in conversation he has a tendency to use wrong words, generally those having a sound similar to the one he should employ, and that his voice is altered and his manner of speaking different from what it was before he became unwell.

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* Vance. Chemical Examination of the Urine, with a description of a convenient Apparatus for its speedy Analysis. *Medical World*, September, 1871.

During the first interview I had with him, he related most of the symptoms just detailed, but was disposed to ascribe most of his difficulties to disordered digestion, a condition which manifested itself very shortly after his business troubles commenced. His appetite was capricious, and an article which he had longed for most ardently would excite a sensation of disgust as soon as it was brought into his presence. Pain in the pit of the stomach and flatulence were especially distressing, and were present to a greater or less degree at all times. His bowels continued regular and nothing abnormal was noticed about the renal secretion.

At the time he came under my care he was about 35 years of age. He could give a clear and concise family history for three generations, and numbered among his ancestors three persons who had been insane, one who died of apoplexy, and one who during the past five years has been a helpless paralytic. His own health has always been good, and with the exception of an occasional attack of sudden painless vomiting, sometimes attended with profuse watery evacuations, he has never been sick.

The æsthesiometer revealed extensive and well-marked anæsthesia in various parts of the body. As compared with the corresponding situation on the other side, the anterior surface of the left forearm was hyperæsthetic, while this state of facts was reversed with regard to the left hand and arm. Well-marked anæsthesia could be demonstrated all over the right side, with the exception just noted. The patient stated that it took him some time to determine, in his own mind, whether an object was or was not in contact with the right side of the body, while no such difficulty existed on the left side—a fact which was very apparent when he was tested to determine the point. In addition to his diminished sensibility to touch and contact, it was found that his sensibility to changes of temperature was likewise impaired, and that he was not competent to decide with his right hand the difference between two substances, one of which was 20° hotter than the other. Painful impressions were felt as acutely on the right as on the left side of the body, and the electro-muscular sensibility was not implicated on either side.

The muscular power, as denoted by the dynamometer, was very markedly diminished on the right side. With the left hand, he could mark 28°, while, despite his utmost exertions, he could barely reach 15° with his right. His grip was very uncertain, at one moment strong and another weak—that peculiar vacillating contraction of the muscles of the forearm which is characterized by the irregular and descending line traced by the dynamograph. The electro-muscular contractility was alike on both sides. The muscles were not atrophied to any appreciable extent, but seemed to be in a very fair condition.

The ophthalmoscope was next resorted to, and the following peculiar and characteristic appearances were noted at the back of the eye. The optic disk and its immediate neighborhood was obscured by a grayish-white coloration, and the appearances were such as to indicate an infiltration and swelling of the part. Immediately on the outside of this was a broad white band, which contrasted strongly with the red reflection of the fundus, and at the periphery of this zone a number of very small, but perfectly white, isolated spots could be discovered. In the region of the macula lutea these small white spots were numerous and assumed a circular arrangement. Several traces of extravasated blood could be seen. The vascular supply of the disk was concealed from view; that of the retina was but little changed from a healthy state. The veins were slightly enlarged and a trifle more œdematous than normal; the arteries retained their usual dimensions.

At my request, a specimen of his urine was carefully examined by my friend Dr. Rankin, but aside from a slight excess of urates it was perfectly healthy. Another specimen was procured, which I examined, but could discover nothing in addition to what Dr. Rankin had found. For a number of weeks subsequently, the urine was tested every few days, but none of the evidences of kidney disease could be detected.

This gentleman travelled South in the latter part of December, and spent six or eight weeks in Havana. This trip had the effect of restoring his health in great measure, and upon his return, last February, he was in excellent spirits, and said that he had not been feeling so well for a year. An examination of his urine now revealed granular and hyaline casts with a small amount of albumen. The ophthalmoscopic appearances were much less marked and striking than they were before, but were none the less characteristic. The broad white zone surrounding the parts in the immediate vicinity of the optic disk had disappeared, and was replaced by a structure of a slightly darker tint than the rest of the fundus; the edges of the disk which before were obscured could now be discerned with ease, while the discal vessels could be observed without difficulty. The circular arrangement of white spots previously seen at the macula lutea was unaffected. A number of white streaks had been developed along the course of some of the vessels. The spots of extravasated blood had all disappeared. A certain amount of difficulty of vision still remained.

This case does not stand alone, for my notes show several others in which the essential particulars—the degeneration of the retina and other ophthalmoscopic appearances of Bright's disease—have been discovered upon examination, without there being any rational symptoms, or other physical signs of renal disease yet in which subsequently the patients have developed albuminuria. It is but a few days since that I saw a typical example of this peculiar form of retinitis in a patient under the care of my friend, Dr. James F. Ferguson, with whom I saw the case in consultation, but no evidences of albumen or casts could be found, although the urine was separately examined by two different observers. Such cases are far from being common—at least so far as their recognition is concerned—yet their importance from a pathological and therapeutical point of view is such that they merit careful attention and study.

The case above is one that would ordinarily be accepted as a typical example of that form of cerebral disorder designated "congestion of the brain." The manner of its development—following prolonged and unusual mental anxiety and distress; its occurrence in an individual strongly predisposed to nervous disease; the symptoms complained of—insomnia, vertigo and headache, with hallucinations of the special senses of sight and hearing, and "referred sensations," such as the pricking and tingling in his extremities, and the feeling of coldness in his right leg; the mental depression and characteristic changes in speaking and writing; and the alterations of peripheral sensibility as determined by the æsthesiometer, and of muscular power, denoted by his manner of walking and by the use of the dynamometer—as also the striking fact that these last phenomena were more marked on one side than on the other—make a series of facts which point to the brain as the part at fault, and which indicate with almost certainty that the condition there existing is due to exhaustion of that organ. When this state of exhaustion is due to overwork of that part, it is generally, but not invariably, accompanied by overfulness of the cerebral vessels. It was for the purpose of determining the state of the cerebral circulation that the ophthalmoscopic examination was made, and I was surprised to discover that the brain symptoms which were so strongly marked, were merely symptomatic of Bright's disease, and were not due to primary disorders, either organic or functional, of the intra-cranial organs.

The peculiar form of vomiting complained of by this gentleman was the only symptom which can be considered to indicate to the slightest degree any renal disorder.

The connection between the retinitis and the organic changes in the kidneys is doubtless due to the operation of some one cause which produces them both. In other words, the degeneration of the retina and the degeneration of the kidneys are the common expression of some bodily condition which we are as yet unable to understand. When we consider the extremely delicate tissues of the former, and the comparatively stable structures of the latter, we cannot be surprised that the retina should present morbid changes before we can obtain any evidence of implication of the kidneys—the only wonder being that this mode of development should not be more common than the recorded observations would lead us to infer.

I am inclined to believe that a careful and systematic examination of the intraocular structures with the ophthalmoscope in every case in which nervous symptoms are complained of—these examinations being frequently repeated, and the patient watched for a length of time—will ultimately establish the fact that in a large proportion of cases Bright's disease will first manifest itself by the characteristic changes which it produces in the retina, and that these retinal appearances will be present for a length of time before any abnormal ingredients can be detected in the urine.

A CASE OF PHTHISIS.

By James M. Keniston, M.D., Cambridgeport.

The note on "Chloral in Cod-Liver Oil," in the Journal of Feb. 15, suggests that a brief history of the following case may prove interesting. I was called, Nov. 14, 1871, to see Mr. K., aged 26, American, who had served in the late war, and since its close had been clerk in a large dry-goods house in New York. His father died of smallpox and his mother of pneumonia. Three brothers died of consumption. He had been ill for a year, and came to Cambridgeport a week before I saw him. He had taken oil and all the usual remedies until he was sick of them, and had finally given up all treatment. Dr. C. H. Allen saw the case with me, and we agreed that there was no hope of recovery, and the only treatment was palliative. The night-sweats were profuse, the cough bad, expectoration abundant but difficult; there was pain in the left chest, and a large cavity extending from lower edge of clavicle to a point just above the left nipple.

Dr. Allen advised the inhalation of the following mixture three times a day:—

Carbolic acid crystals, ʒiv.
Aqua, ℥ix.

This was continued during the patient's life, and gave him so much comfort that he would have given up anything sooner than his inhalation.

For a few days after he began, the amount of matter expectorated increased, but after that, diminished. The cough also became less painful. He was told to drink all the milk he could, and eat plenty of butter, and anything else he felt an inclination for. He took no whiskey, but occasionally a little wine. The inhalation also seemed to improve his appetite, formerly very poor.

Two troublesome symptoms remained—the night-sweats and sleeplessness. The latter was due partly to the former, and partly to the fits of coughing. The mineral acids, astringent baths, and, in fact, all the usual remedies were tried, but with no effect. I finally resolved to abandon any attempt to relieve the sweats, and only try to give him a good night's rest. On Dec. 14, I ordered 15 grs. of chloral at bed-time, and gradually increased it to 20 grs. To my surprise, the night-sweats ceased at once, and never appeared again during his life, which lasted two weeks. He generally slept eight hours, occasionally awakening to cough, but always falling asleep again at once. I have no theory to offer in regard to the way in which the chloral effected this improvement, and can only state the fact.

In regard to the inhalation of carbolic acid in advanced phthisis, Stillé says: "It diminishes the secretion, thereby lessening the waste of substance and the exhaustion caused by repeated and urgent coughing." (Mat. Medica, vol. i., p. 669.) Ringer, in his Handbook of Therapeutics, p. 324, speaks of its use in the same disease, and also in bronchitis.

It seems to act as an astringent to the walls of the cavity, if there be one, and to the walls of the air cells and bronchi, contracting them, and thus preventing excessive secretion. It is also disinfectant, if the secretions are offensive. But, besides this, it seems to render the act of respiration easier, either directly, by contact with the lungs, or indirectly, by some action on the pneumogastric nerve.

Dr. Allen tells me that he has since advised the inhalations in another case of advanced phthisis, with equally beneficial results. It seems to me that these two remedies are worthy of a further trial at the hands of the profession.

A CASE OF MALPRACTICE.

Messrs. Editors,—Notwithstanding the high stand to which the medical profession of New England has attained during the last half century, there are yet to be found those who, though in active practice and to a degree enjoying the public confidence, would rather seem to belong to the class of physicians of many years ago. To illustrate this position, permit me to relate an anecdote pertinent to the case.

A. B., a young man of good family and habits and of good antecedents, by accident severed the radial artery near the point of junction of the carpus and metacarpus. His family physician was called, who, failing to secure the severed artery, saw fit to apply a strong ligature about two inches above the wrist. In this condition the unfortunate patient was abandoned for about twenty-four hours. Then the doctor returned, but he found the whole limb below the ligature much discolored, and indeed in an advanced stage of mortification. Counsel was called, but no relief was obtained. Then a skilful surgeon was called, who decided to amputate at once as the only chance. This was done at about the junction of the lower and middle third of the forearm. The patient lived. This occurred not far from four years since. What was the ultimate result?

Some six weeks since I saw A. B. for the first time. There were strong signs of established phthisis, and that, too, in advanced stages. I was told by him that, before the accident, his health had been uniformly good. He is now about 25 years old, and has, during the time since the loss of his hand, lost at least 40 pounds from his usual weight. It does not seem that his recovery is possible; and as he has been ill since the time of the accident, I have no doubt that his present condition may be to a great extent attributed to the bad management of his physician in the first instance.

It is not my custom to reflect upon any member of our profession, and I have thus written only for the benefit of its younger members and for that of those young men who are in the stage of preparation for it.

It is most earnestly to be hoped that, with the present abundant means available for the acquisition of a thorough and well-grounded medical education, in the future there will be found no one of the two classes above mentioned who can evince such a lack of knowledge of the prerequisites for successful practice as would permit them to be led into the commission of so great a mistake as the one referred to in this communication.

But for the sake of the public, whose demands are high, for the sake of the reputation of our profession in New England, which is now noble and well worthy of all honor, let our young men be conjured and prevailed upon to set their mark high, and then come up to it. In this way the confidence of the public, whom we would with honesty and ability serve, will be unabated.

Progress.

Selected Papers.

SUCCESSFUL APPLICATION OF THE TREPHINE OVER THE RIGHT LATERAL SINUS OF THE BRAIN.

By Paul F. Eve, M.D., Professor of Operative and Clinical Surgery in the University of Nashville.

I take leave to report the following unusual operation—the successful removal of four discs of bone from over and near the right lateral sinus: this, too, in direct opposition to our best authorities in surgery. Mr. Erichsen declares that "there are certain parts of the skull—over the venous sinuses, for instance, and near the base—to which no prudent surgeon would apply the instrument." Prof. Gross, too, says: "there are certain parts of the skull where, if it is possible to avoid it, the trephine is never to be applied;" and he specifies the lateral sinuses, to which he makes an additional objection to operating over them, due to the inordinate thickness of the occipital bone.

My patient, Mr. D. P. Eubanks, a stout, healthy man, aged 42 years, while Sheriff of White County, Illinois, was struck from behind with a bludgeon, having a knot or bend in it, and knocked insensible for sixteen hours. This occurred two years and ten months ago; in the meantime he had sought relief by visiting Evansville, Cincinnati, St. Louis, &c., and found one surgeon who ventured only to cut down on the depressed bone. Finding I had returned from the last-named city to Nashville, he arrived here on the 15th of October, and was put upon treatment preparatory to a tentative operation at trephining.

Precisely midway between the occipital protuberance and the external meatus of the right ear, there was a depression in the cranium of about three-quarters of an inch in depth, with the circumference of a silver half-dollar. This resulted from the blow already referred to; and while the patient had not become epileptic, he yet experienced symptoms demanding operative interference. One professional gentleman, as we have mentioned, had already attempted this. Mr. Eubanks was now habitually costive; walked with difficulty, and only a short distance; complained of constant weight and oppression in his head; of a dull, annoying pain, radiating at irregular intervals from the point injured; had lost his energy; was never cheerful, and was losing flesh and strength. Nothing could provoke a smile; was almost hopeless, and said that he occasionally felt like losing his senses.

Dr. Buchanan unexpectedly coming into my office, first encouraged an operation, by stating that his father once saved a patient in whom the longitudinal sinus had been opened; thus confirming the opinion that wounds of the large venous canals of the brain were not necessarily fatal.

On the 28th of October (Dr. Buchanan being indisposed), assisted specially by Dr. Briggs, Drs. Van Lindsley, Fitts, and others, and before the class, the usual crucial incision was made over the depression in the skull; then, by detaching the occipital portion of the occipito-frontalis and the insertion of the trapezius muscles, thus getting below the superior curved line of the os occipitis, the half-inch crown of Galt's trephine was applied, and, working it very cautiously, in about fifteen minutes a button of bone was removed, fortunately, too, without wounding the dura mater. It was our design to cut through the osseous structure, found, happily, quite thin, directly above the right lateral sinus, and now, by sawing out three other circular pieces of bone, it was made evident that our object had been carried out; for, in the space made by the elevation of these three disks, lay, undisturbed, the lateral sinus, readily recognized by the deeper color of its venous blood. Nothing now remained to complete the operation, which was performed in about forty minutes, but to cut off the angles left by the trephine, round off the bony opening, and secure over it, by silver wire sutures, the four angular flaps of the scalp. Some five ounces of blood was lost, but only one artery was tied. Coming from under the influence of ether, the patient expressed himself feeling better, and was soon after conveyed to the hospital.

He was put upon the most rigid after-treatment—absolute diet and perfect repose. A slight reaction the next day was met by small doses of sulphate of magnesia; and he subsequently experienced not a serious symptom. Of course one so long and so seriously afflicted could not recover at once, and had periods of depressions, but nothing more. Locally, cold cloths were applied, then changed to emollient tepid poultices; a very blunt probe was inserted every day or two, at the most pendant cut, to prevent accumulation under the scalp, which gave exit first to sanies, for some days, when the wire sutures were removed, and gradually the secretion became lessened and converted to laudable pus. The wound was thus kept open to the thirtieth day, when it gradually closed.

The case found most similar to the one here presented, is recorded by my friend, Prof. F. H. Hamilton, in his *Treatise on Military Surgery*, page 240, where he notices the injury sustained by a lad 10 years of age, who was brought into Bellevue Hospital with fractured skull, made by the wheels of a street-car. A fragment of the occipital bone had lacerated the lateral sinus, the hæmorrhage was profuse, but completely arrested by a pledget of lint secured by a roller. The patient, however, died during the night, due, undoubtedly, to the extensive fracture of the os occipitis and injuries within the cranium.

The learned Velpeau published that Warner, Marchetti, Garangeot, Sharp, Pott, Callisen, Mosque and Lassus, had opened various sinuses of the dura mater, and without unhappy results; and, moreover, that Biluger, Copland, Gooch, Abernethy and Hutchinson, had exposed the brain in perforating the occipital bone. Over the protuberances of the cerebellum, he adds that there are no arterial branches except the occipital, and the lesion of the trapezius or complexus muscles is not of much importance.

Prescott Hewett, Esq., the author of Injuries of the Head, in *Holmes's System of Surgery*, declares that the trephine has been applied, and successfully, too, close to the foramen magnum occipitis.

In the French *Dictionary of Medicine*, in thirty volumes, article on The Trepan, we translate that surgeons have been forbidden to operate over the course of the venous sinuses of the brain for fear of hæmorrhage resulting. This, however, is not so dangerous as was formerly believed, as the blood does not flow from them with much force, and the slightest compression will arrest it; so then, continues he, these operations may be performed when a fracture compresses the venous canals, or spiculæ of bone are thrust into them.

Bibliographical Notices.

Observations on a Form of Nervous Prostration (Neurasthenia) culminating in Insanity. By E. H. Van Deusen, M.D., Superintendent of the Michigan Asylum for the Insane.

This pamphlet of twenty-four pages is a supplement to the annual report for the years 1867–68, and was forwarded to the writer as confirming his statement in a recent article published in this Journal, Feb. 1, 1872, that insanity was often a simple neurasthenia of the convolutions. Dr. Van Deusen remarks that "there is a disorder of the nervous system, the essential character of which is well expressed by the terms given above, and so uniform in development and progress that it may with propriety be regarded as a distinct form of disease."

Among its causes he places first, excessive mental labor conjoined with anxiety and deficient nourishment. Hæmorrhage and debilitating diseases, following or connected with depressing emotions and sleeplessness, are also mentioned. The early married life of the wives of small farmers, the hot-house system of education and the speculative character of many kinds of business are calculated to induce this disease.

The leading symptoms are *malaise*, impaired nutrition and muscular atonicity, changing the expression of the countenance and giving rise to uterine displacements; neuralgias of debility, cerebral anæmia, irritability of temper, distrust, mental depression, impaired intellection, melancholia and mania. When death ensues, it is from exhaustion or from coma, with subarachnoid effusion. Secondary to the earlier symptoms of loss of vital power, is a marked tendency to hyperæmia in various parts. These local congestions and hyperæmias are often mistaken for the source of disease. For instance, "uterine displacement, with leucorrhœal discharge, is very commonly present, and at some stage is apt to be the most prominent difficulty under which the patient labors. Through muscular atonicity the organ sinks, and finally rests on the vaginal walls, the pressure producing congestion, ulceration and discharge. In several cases admitted here, the condition of the patient from this cause had become one of great misery, still in no single instance has it become necessary to resort to any local treatment whatever, and in no case has there been a failure to give the patient entire and permanent relief by remedies addressed to the constitutional condition solely."

Cerebral anæmia, with occasional attacks of hyperæmia, easily induced by moral or physical causes, marks this disease. Headache is not a prominent symptom in every case, but may accompany the hyperæmic state. Sleeplessness is common, and drowsiness sometimes occurs, which Dr. Van Deusen attributes to disorder of the renal function, or to passive cerebral congestion. Dr. Hammond attributes this symptom to anæmia, that being the normal state in sleep.

He distinguishes neurasthenia proper from a form of debility depending on malarial influences, although malaria may in the course of time develop the morbid condition under consideration. The malarial neuralgias, he thinks, are more permanent and less shifting than the neuralgias of debility. Morbid mental manifestions are met with due to malarial influence, but can generally be distinguished from those of neurasthenic origin.

Among the more advanced symptoms which sometimes present themselves are profuse perspiration, copious mucous stools, urine loaded with urates and tending to speedy decomposition, fœtid breath and exhalations, blood murmurs and ascites, and hyperæsthetic phenomena, as in the case of a lady who suffered from a constant sensation of cold in spite of artificial heat and warm wrappings.

The first distinctly morbid mental symptom is generally *distrust*, although it may be preceded by some irritability of temper or slight depression. This distrust may involve the conjugal relations, developing into delusions of jealousy; or the religious sentiment, ending in religious melancholy. Apprehension of poverty is a common form of mental disturbance in these cases. "When there occurs a *sudden and entire* change in sentiment; when hope takes the place of despair, and jealousy and suspicion are supplanted by the opposite sentiments, it almost always betokens still greater prostration, and but a trifle will then be required to develop mania."

He thinks the early recognition of this

neurasthenic tendency is of special importance. In the analogous affections of malarial origin, a few months' delay is not of vital moment, a change of residence at any time being sufficient to effect restoration. In the neurasthenic form, however, the morbid tendency is strongly progressive unless remedially interfered with.

The treatment recommended consists in judicious use of the various nerve tonics, with rest and a largely improved diet. Alcohol was badly borne in the cases observed by Dr. Van Deusen, though he uses stimulants in the event of extreme exhaustion. The brain, long unused to a full and steady supply of rich blood, is oversensitive at first to all which stimulates the cerebral circulation. Sponge baths and spirit frictions are thought safer in the maniacal stage than the hot baths useful in more sthenic cases. Gentle exercise in the open air, long continued but kept within the bounds of fatigue, is desirable. During convalescence, what the writer calls *recreative occupation* is advised.

The following remarks are true of most forms of mental disease. " As a relief for depression, travelling is very likely to be suggested, but is very seldom beneficial. The different stages of a journey cannot be so arranged as to secure regularity in sleep and in taking meals. The mode of preparing food and its character cannot be made to meet the requirements of the case. New ideas are presented so rapidly as to cause great weariness, and it is not at all uncommon to meet with instances in which the patient leaving home suffering from depression simply, returns more deeply melancholic or even maniacal." T. W. F.

Plain Talk about Insanity; its Causes, Forms, Symptoms. With remarks on Hospitals and Asylums, and the Medico-legal aspect of Insanity. By T. W. Fisher, M.D., late of the Boston Hospital for the Insane. Boston: Alexander Moore. 1872. 8vo. Pp. 97.

This little book is a reprint of several papers which appeared in the periodical known as Good Health, although there is nothing except the publisher's name to show this.

As a *popular* treatise on Insanity, the book supplies a want. If read, we believe it will do good. We fear that its unattractive form and the too free use of medical terms in the first part may deter many from reading it. The last part is not open to the latter objection and is a very timely and desirable review of hospitals and of the importance of hospital treatment for the insane.

The author is decided in his statement that insanity is only a symptom of disease of the brain, and that, in its study, we have nothing to do with mind apart from its organ, the brain; this view of the subject cannot be kept too prominently before the public mind, as there is such a tendency to look upon insanity as a disease of a metaphysical entity, supposed to be immaterial, called mind. This is not so, and for that reason we are sorry to see in the next paragraph the statement that " these structural changes are, however, more likely to be the results, than the causes of insanity." We think this statement as objectionable as one which makes tubercle, cheesy degeneration, consolidation, bronchial inflammation and other changes in the lungs the results rather than the causes of the symptoms found in lung disease—i. e. cough, dyspnœa, fever, &c. The word insanity for us is merely the name of a group of phenomena which are the symptoms of brain disease, as Dr. Fisher says in the first paragraph.

We had marked passages to refer to which touch on important points and with the opinions of which we heartily agree. But we find there are so many such that we can only mention a few to which our attention has been also strongly directed. One is the injury from continued study as affecting the health of young girls particularly. If the injury caused by the present system of study could be known, parents would have their eyes opened to the fact, which would surprise them; in order to acquire a slight temporary reputation for mental ability and good scholarship, their children are allowed to endanger the happiness and content of a life-time.

The necessity of accepting the advice of a competent physician in regard to the treatment of a case of insanity, and also as to hospital treatment, is very properly mentioned; the nature of the treatment generally employed, and the advantages of hospital life are also clearly described.

We cannot but admire the happy turn given at times to a thought—e. g., " Pulling out of the intestines, gouging out an eye, or sawing off the tongue, are a few of the *eccentricities* in which such patients may indulge." Again, speaking of the sudden acts of violence at times committed by the insane, as killing children, wife or husband, or committing suicide, he says, "The writer once undertook to make a scrap-book of these *pleasant* items."

We hope that the book will be generally read, and it will open the eyes of those who read it to the delusions which are so prevalent in regard to insanity and insane hospitals. The sooner the truth is known the sooner will the horror and disgust with which these unfortunate sick have been regarded disappear. In this department knowledge will dispel the darkness and mystery which has surrounded the subject in past ages. S. G. W.

Smallpox: the Predisposing Conditions and their Prevention. By Dr. Carl Both. Boston: Alexander Moore. 1872. Pp. 50.

We are at a loss to know whether the author of this work has intended its perusal to be confined to thoroughly scientific people or for the "people in general," or whether it is to occupy a middle ground of instruction. In either event, the reader is treated to ideas of exceeding novelty concerning the etiology and prophylaxis of a loathsome disease. These truly original theories may be best exemplified by one or two quotations, which will suggest their own proper deductions.

"But what is smallpox? It must be admitted by all that smallpox consists in an escape or exudation of something into the skin which causes it to swell, and by a process of putrefaction destroys it, and not unfrequently carries off the patient. This mass * * * *must* necessarily come from the blood; therefore, it must be something in the blood which is abnormal, sickly or bad."

* * * * * *

"We find smallpox a regular visitant wherever, from any cause, salt has become scarce. * * * The Prussian army had no smallpox during the late war—and why? They were well provided with *pea-sausages*, which contained not only salt, but *all* the necessary ingredients the human body requires for health and vigor. * * * The reason for the comparative freedom from smallpox in Boston is very simple. In no city in the world is there so much salt used, in proportion to the number of inhabitants, as here. It would be difficult to find a table where salt was not placed before each person, and at almost every meal, with the exception, perhaps, of tea." * * * "I maintain that of *one hundred children in all our American cities, seventy-five are more or less deficient in the amount of salt required, and that this deficiency is substituted by sugar.* The consequence is scarlet fever, measles, chickenpox or smallpox, according to circumstances." * * * "The *proper* use of salt is the scientific and most certain prevention of smallpox, both in theory and practice, that I have any knowledge of." * * * * "This theory, if correct, must hold good in all cases, without a single exception; and if nothing can be found to disprove its correctness it holds that the *proper* use of salt, in the human economy, will eradicate smallpox at once and forever.

"Therefore the use and office of salt should be more generally known and taught in all our public schools."

The medical profession should rejoice to learn all this. Theories and counter-theories of vaccination, revaccination, vaccino-syphilis, cow-virus, humanized stock—*requiescant in pace!*

Handbook of Skin Diseases. By Dr. Isidor Neumann, Docent an der. k. k. Universität in Wien. Translated from the Second German Edition, with Notes, by Lucius D. Bulkley, M.D. New York: D. Appleton & Co. 1872. Pp. 467.

A most extended clinical experience in cutaneous diseases, habits of patient industry, a clear head and a concise and telling method of expression, had already given Neumann a wide reputation as a practical teacher while as yet shining only by the reflected light of the great centre of the dermatological system, Hebra. In 1867, if we remember aright, Neumann began, in Wedl's laboratory, a series of microscopical investigations into the pathological histology of various lesions of the skin, and, stimulated by an unfortunate mistake made in the Imperial Academy of Sciences, has since devoted much time and attention to this branch of his specialty, so that at present he ranks among the very first authorities upon the anatomy and etiology of diseases of the skin. To these subjects, previously neglected, he devotes the chief portion of his book, the special value of which depends largely upon the described results of his original researches in these directions.

To detailed minutiæ in regard to the therapeutical management of diseases of the skin, Neumann does not descend. He writes for his countrymen, to whom the lamentable ignorance existing in England and America with regard to so important a branch of medicine as dermatology, is a thing simply inconceivable. While not adapted, however, to the needs of a beginner, in the American sense, Neumann's therapy is amply sufficient for those already somewhat conversant with the subject of which he treats. Like most of the present leaders in our profession, he is a "doubting Thomas" with regard to the efficacy of excessive and varied medication, and prefers, moreover, to attack the enemy boldly and in front, where he finds him committing ravages, rather than to sneak behind him and wage war upon non-belligerants, often with profit to the foe.

So much for Neumann's really valuable work, a translation of which we are very glad to see. The increased estimation in which dermatology is held is shown by the almost simultaneous appearance of the works of Tilbury Fox and Neumann; of which two complementary works each makes good to the American practitioner the apparent deficiencies of the other. The estimation in which Neumann is held is shown by the simultaneous appearance in England and America of translations, by different men, of the work in question. As regards the American edition, the translator has done his work well. Avoiding the bald rendition of words, he has retained the ideas and with these has preserved in great measure the force and terseness of the original.

But—and we say it unwillingly—we are sorry that the translator has thought necessary for the jewel, a setting of his own. A translation should be such *pur et simple*, and we should have preferred to see the valuable notes of the translator given in separate book form as his own contribution to dermatology. E. W.

Medical and Surgical Journal.

Boston: Thursday, March 28, 1872.

FIFTY-EIGHTH ANNUAL REPORT OF THE MASSACHUSETTS GENERAL HOSPITAL.

We find on our table the report of the Massachusetts General Hospital for the year 1871, and its perusal suggests several topics of interest to members of the profession in this neighborhood.

During the year, ending December 31st, there were treated at the hospital proper 1537 patients, of which number 1143 were discharged well or relieved. The proportion of deaths to the whole number of results was 7·88 per cent. The average number of patients was 122, and the average cost per patient $9.96 per week. Besides those classed as in-patients, 9,792 persons were treated as out-patients in the medical, surgical and dental departments. Important changes have been made during the year in the heating and ventilation of the buildings, which promise good results in the future. The appointment of Dr. Quincy as artist to the Institution supplies a want long felt by the officers. The Warren Prize, founded by the late J. Mason Warren, in memory of his father, John C. Warren, was awarded during the year to Dr. Horatio C. Wood, of Philadelphia, for a dissertation on "The Physiological Action of Nitrite of Amyl." The same prize, for the year 1874, is now offered to the author of the best essay, considered worthy, on "Experimental Researches on the Elimination of Drugs by the Mammary Glands." The valuable Treadwell Library, the property of the hospital, now contains about 5000 volumes, and the fund for its increase is devoted to the purchase of rare and expensive works, and foreign medical journals.

In the McLean Asylum for the Insane, 253 patients have been treated, of whom 21 were discharged, recovered, and 31 much improved or improved. During the year, just passed, Dr. J. E. Tyler resigned his office as superintendent, and his place, temporarily filled by Drs. Whittemore and Ray, is now occupied by Dr. George F. Jelly, formerly of Salem.

We close our review of this report by copying the resolutions, adopted by the trustees, on the resignation of Dr. Tyler.

"*Resolved*, That this Board, after due consideration of all the facts and circumstances in the case, accept, with great reluctance, the resignation tendered them by Dr. John E. Tyler.

"*Resolved*, That Dr. Tyler, during the thirteen years of his administration of the Asylum, has, by his professional skill, sound judgment, self-sacrificing spirit and conscientious discharge of the duties of his arduous and responsible office, not only maintained the very high standard of excellence which this institution had previously attained among similar institutions of the country—but, by his courteous manners, well-balanced temperament and loving heart, has, to a singular degree, won the esteem and affection of the large number of patients who, from time to time, have been under his charge—the confidence of their relatives and friends, and the respect of the public at large; and, therefore, this Board deem it their duty to tender to him, in behalf of the institution, their warmest thanks for the services he has rendered—their deep regret at the circumstances which make him unable, at present, to perform the duties they would have so gladly continued to him, and their sincere wishes and prayers for his speedy and complete restoration to health and usefulness." * * *

"*Resolved*, That the Board is unwilling to conclude its action in this regard without noticing the valuable voluntary services rendered to the institution by Mrs. Tyler. In their belief, by her good judgment, her quick sympathy and constant kind attentions and care, she has done a great deal to soothe and mitigate the sorrows of the patients and promote the happiness and welfare of the household, and they beg leave respectfully to tender to her with their hearty acknowledgments, their personal esteem and their best wishes."

THE U. S. MARINE HOSPITAL SERVICE.—We have received from Dr. J. M. Woodworth, Supervising Surgeon of the U. S. Marine Hospital Service, his statistical report for the six months ending December 31, 1871. The Marine Hospitals are now under the direction of the Treasury Department, and the report to the Honorable Secretary gives, in detail, the number of days of hospital relief and the amount of expenditures incurred for the care and treatment of sick and disabled seamen, as well as the amount of hospital tax collected in the several ports.

The reduction of the expenditures for the maintenance of the hospitals for the six months included in the report, as compared with the corresponding six months of 1870, amounts to over $40,000. The amount of hospital tax collected during the latter half of 1871 is ten per cent. greater than that received during the corresponding months of 1870, under the operation of the same law. For the six months ending Dec. 31, 1871, 7,257 patients were treated in the hospitals, at an average daily cost of $·97·6; an aggregate of $195,109.04. The percentage of deaths was three in a hundred.

L'UNION MEDICALE DU CANADA.—We have, thus far, scarcely had time to notice a new journal in the French language, which is to appear every month in Montreal and which has already reached its third number. Hitherto, the pages of our contemporary have been filled with interesting articles. We regret that its Editors have not seen fit to reject a wordy puff, under the guise of an original communication, of the drug cundurango, and a fulsome laudation of the physicians whose names are most intimately connected with it. The testimony of scientific men, both in Europe and America, is that cundurango is *absolutely worthless* for the cure of cancer, syphilis, or any other disease; the profession will not fail to denounce a medical periodical which lends its columns to a skilfully drawn advertisement of a remedy which has been proved to be of no value.

In connection with this subject, we would gladly give extracts from a letter written to ourselves by a scientific and careful member of the profession who has thoroughly tested the drug; but the day of this nostrum has gone by, and our Canadian neighbors, as well as our own people, well know that cundurango is a thing of the past.

COLORADO MEDICAL SOCIETY.—In response to a call issued by the Denver Medical Association, a convention was recently held in that city for the formation of a State Society. We have read, with much pleasure, the address delivered before the convention by Dr. Buckingham, of Denver, which is of the right stamp, and gives promise of a sound foundation to the Society. From our correspondence with members of the profession resident in Colorado, we are confident there are both intelligence and honesty there; and that the interests of the profession will be well cared for. The officers of the Society are R. G. Buckingham, M.D., President; G. S. M. McMurtrie, I. J. Pollok and W. F. McClelland, Vice-Presidents; A. Stedman and R. J. Collins, Secretaries; E. C. Gehrung, Treasurer.

An Appeal to the Board of Health. *Messrs. Editors,*—In a recent paper *(Annales d'Hygiene Publique* Oct., 1871), M. Chevallier, member of the Academy and of the Board of Health, calls the attention of the Board and of Parisians generally to a necessity which, if imperfectly met in Paris, is in Boston flagrantly, criminally and almost utterly ignored. He says:—

"Amongst the measures for morality and health falling to the care of municipal administrations, those pertaining to public urinals need prompt and thorough consideration. This need is shown by the appearance presented at evening of the walls and corners of side streets, and of unfinished buildings, converted to public urinals and foci of foul air from the fermentation of the urine thus spread over large surfaces."

We cite, for example, in our own city, the northern side of that end of Pemberton Square which leads from Tremont Street.

It seems to us that this is a subject well worthy the attention of the State Board of Health, since Paris finds that her thousand or more urinals are insufficient, and according to the same ratio of urinals to population Boston would require over a hundred and fifty, whereas at present she hardly possesses a dozen. We dare not hope as yet for *cabinets d'aisance* or urinals for women, but urinals for men are imperatively called for. Nor need these be placed, as in Europe, along the most crowded streets, offending sight, smell and hearing, and in many cases the touch and taste. If placed in side streets, the public will speedily learn their whereabouts, and fœtid odors are entirely prevented by employing a method recently discovered, and already in successful operation in Paris and elsewhere.

This method consists in spreading a thick coating of tar over the sink of the urinal and letting it harden before the urinal is opened to the public. From the sink a pipe leads to a cistern below, the walls of which are also tarred. Here the urine remains, deodorized, until night, and is then, by means of a portable pump, removed and carried away in casks to be employed for purposes of agriculture.

The lack of urinals and the consequent impossibility of relief when necessity makes itself felt, may occasion the gravest consequences. It is not many years since in Paris itself the death of one of the members of the Health Department was thus caused. Dr. Delpech says, the compulsory and prolonged retention of urine in the bladder, apart from the distress it occasions, even in healthy persons, is the cause of incontestable damages. The first of all is that the excessive distention of the muscular fibres of the bladder produces inactivity of that organ, a special form of partial paralysis, which renders micturition slow and difficult, prevents the complete emptying of the contents of the bladder and may lead to complete paralysis and retention of urine. The retained urine becomes changed, and the inactivity of the muscular fibres favors catarrhal inflammation of the lining membrane of the bladder and senile hypertrophy of the prostate, conditions the pain and danger of which are known to all.

Even in healthy persons there is danger; much more is this the case where, from various causes, the genito-urinary organs are already affected by disease, and where the unsatisfied need of urinating often becomes the cause of horrible pains, and sometimes of serious accidents.

The most terrible consequences may result, for instance, from a too prolonged retention of urine when there exist chronic inflammatory conditions of the neck of the bladder, prostatitis, chronic nephritis, gravel or calculi. In such cases there may supervene acute cystitis, pyelitis, nephritis with suppuration, &c., often with a fatal termination, the direct cause of these conditions being the compulsory necessity experienced by the invalid of keeping his bladder full for a prolonged period.

E. W., Jr.

Dr. Charles Gordon.—The daily press has borne well-deserved testimony to the merits of the late Dr. Gordon. The medical profession, as well as the community, has suffered a great loss in his death. With good mental abilities combined with unwearied industry, he early acquired a large circle of patients; and, when comparatively a young man, became one of the leading physicians in the city. He was often called in consultation by his professional brethren, sometimes at a great distance as well as by those at home.

With a delicate organization and a large practice, Dr. Gordon never sank the student in the practitioner. He kept himself alive to the new discoveries with which the age abounds, the interest in which is too often monopolized by the younger members of the profession. Among the many traits that go to make the eminent physician, none are of more importance than the power of accurate diagnosis; and, in this particular, few were more expert than he. In cases requiring long-continued attendance no one had more patience, nor had any one more power to keep hope alive in the minds of the suffering.

In his repeated visits to Europe in search of health, during the past fifteen years, his mind was not idle. Those who met him in consultation but seldom, could not but observe that amid the attractions of foreign travel he had not failed to acquire all that was new in his chosen vocation. His acquaintance with many of the leading men of science abroad, in connection with his own studious habits, secured to him a place in the first rank of those at home. G.

From another correspondent we learn that the late Dr. Gordon, at the time when the Tremont Medical School was in successful operation in this city, gave a course of lectures on skin diseases, which he had made somewhat of a specialty. The course was so highly appreciated by the class in attendance that its members presented him an appropriate and costly present.—Eds.

Watertown, N. Y., March 18, 1872.

Messrs. Editors,—In reply to request of Dr. Stevens, in your last issue, I would report briefly the following case:—Mrs. L., of consumptive family, married a gentleman of robust constitution, with no hereditary tendency to phthisis, whatever, on either side. After a few months, she died, and during the last six months of her illness was very closely attended by her husband, who occupied a place at the bedside most of the days and part of the couch at night. Six months after her death—the husband died, æt. 29, with all the symptoms of tubercular disease of lungs, although, as before stated, he had previously been in the most perfect health. Yours, &c.,

F. B. A. Lewis.

The Diagnosis of Glaucoma.—Our attention has been called to a serious class of cases which are wont to deceive general practitioners; but which, by their insidious nature and their rapidly destructive progress, give rise to certain disturbance, if not utter loss of vision. There is no disease of the eye in which prompt action is so rapidly called for—none in which delay leads to more irretrievable injury. Of sixty-seven cases, mentioned by Mr. Ernest Hart in the *British Medical Journal*, of which he had the notes, fifty-two did not reach his hands until they had suffered serious injury from delay, and in thirty-nine the true nature of the disease had not been suspected, and the treatment had been either useless or injurious in its character.

We quote from Mr. Hart's communication certain rules which will prove valuable.

The ophthalmoscopic test affords the crucial evidence of the disease, but it need not remain unsuspected for want of a few simple rules. 1. Wherever there are superficial inflammation of the eye, spontaneous dilatation of the pupil (generally ovoid), hardness of the eyeball, pain, and diminution of vision, acute glaucoma may shrewdly be suspected. 2. Wherever there is spontaneous dilatation of the pupil, accompanying slight redness of the eye, with hardness of the ball and affection of the vision, subacute glaucoma may be suspected. The previous history generally includes the following subjective symptoms: rapidly increasing far-sightedness, haloes seen around lights at night, and occasional pains in the eyeball. I leave out of view any ophthalmoscopic or other of the optical tests of circumscription of the field of vision, for experts will already be on their guard. The external characters to which I refer in these short rules have been more or less typically conjoined in all the cases which have come under my notice. I am satisfied that it will be very useful that they should, in the minds of all practitioners, be so associated with glaucoma (to which they belong) as always to suggest by their occurrence the probable nature of the disease, and to lead to decisive investigation, and, if necessary, timely action. More eyes have been, and apparently still are, lost by the neglect or misapprehension of glaucomatous affections than from any other single cause.

Scrofulous Disease of the Pharynx and Larynx.—Professor Isambert, of the Paris School of Medicine, has contributed to recent numbers of *L'Union Médicale* a series of articles on the strumous ulcerations of the pharynx and larynx, and the essay has been republished in the *Practitioner* for January. In these papers a distinction of obvious clinical and therapeutic importance is drawn between those lesions of the larynx and pharynx which depend on specific infection, or on tuberculosis, or on malignant degeneration, and those which, more benign in their course, are of simple strumous origin. The writer says that he acquired his knowledge of this discrimination through the importance of anti-syphilitic treatment against certain ulcerations, and from the discovery that tonics and not alteratives were needed. Admitting that in a certain number of cases the scrofulous lesions may be complicated by syphilitic or tuberculous manifestations greatly involving the diagnosis, the author gives the following as characteristic signs by which to determine the more benign type of the disease :—

The scrofulous ulcerations of the pharynx and larynx are to be met, according to their order of frequency, first on the posterior surface of the pharynx, next on the soft palate and its arches, seldom on the tonsils, on the palatal portion of the pharynx, and towards the Eustachian tube; lastly, towards the epiglottis, the arytænoid eminences, and the laryngeal infundibulum. They are almost indolent, and are not attended in the great majority of cases by inflammation of the cervical ganglia. This localization of the outset, the absence of all inflammatory and painful phenomena, and of any radiation in the direction of the cervical ganglia, serve to distinguish them clearly enough from the syphilitic ulcerations which make their first appearance on the soft palate, are surrounded by a more extensive circle of inflammation, and are attended by greater pain and by inflammation of the cervical ganglia.

The appearance of the scrofulous ulcers is pretty similar to that of the slightly eroded *plats muqueux* (syphilitic patches); but they do not present the *opaline* or *iridescent* aspects which in the mucous syphilitic patches form a marked contrast with the *carmine color* of the inflamed circle. The ulcerated patch of scrofula, though irregular and sinuous, like the syphilitic patches, is yet of a more pallid hue, of a *yellow color, similar to that of subcutaneous cellulo-adipose tissue.* It is but slightly depressed, and presents a rugged surface more or less covered with small eminences. It is surrounded by an inflammatory circle of a reddish color, of small extent, of slight thickness, not at all loosened, and blending in an insensible manner with the ulcerated surface. This border speedily resumes its normal aspect under the influence of local treatment. Whilst the syphilitic patches of the pharynx are well enough defined, and are bathed by abundant and limpid saliva, scrofulous ulcerations are covered by *very viscous and adherent muco-purulent expectorations*, and sometimes by *whitish pultaceous* products. In the graver cases, we observe on the pharynx a dirty or grayish earth-like coating, which covers all the surface and exhales a more or less offensive smell, and *yellowish pimples acuminated* like small carbuncles. These malignant strumous manifestations may make their appearance at once, or at least without being preceded by other scrofulous phenomena in the neighborhood. However, the deformation and the abnormal adherences of the soft palate and arches which one sometimes meets on the first examination of the patient, would show that preceding outbreaks of the disease had taken place without being noticed.

The iodo-mercurial treatment modifies in a very short time pharyngeal syphilitic manifestations when they are not too inveterate. The same mode of treatment does not mitigate the scrofulous ulcerations, and indeed it makes them worse. * * * When combatted in time, and before the production of serious pharyngeal injuries, the scrofulous ulcerations cease easily enough. At first amendment rapidly takes place, but the ulcers afterwards close very slowly, much more slowly indeed than syphilitic ulcers. They are then superseded by *white cicatrices* of a *pearlish aspect*, set in small clusters, sometimes *parallel* to each other, and at other times *radiating* in all directions. * * *

The previous history of the patient and any concomitant phenomena will be of great importance in forming a diagnosis. On the one hand, we hear of previous syphilitic manifestations, we find traces of chancres, swelling of the ganglia of the neck, traces of former venereal skin eruptions, cicatrices of gummy tumors; on the other hand, we find the strumous habit, the peculiar facies, the former existence of obstinate ophthalmia, of humors, chronic coryza, strumous abscesses, &c. Lupus of the face or of the nasal fossæ will generally have preceded pharyngeal lupus. However, this latter phenomenon may be the first manifestation of scrofula. When syphilis is grafted on a scrofulous constitution, there necessarily results a reciprocal aggravation of both affections, and it becomes very hard to make out what phenomena belong to either disease among the injuries which appear in the fauces: this coincidence will of course exert considerable influence on both diagnosis and treatment.

It is also to such general indications as the above, added to examination of the chest, that we must chiefly resort, in order to distinguish pharyngo-laryngeal scrofula from the ulcerations brought on by phthisis. Here neither the dates of the disease, nor the localization of phenomena, are the same. It is only when phthisis is far advanced, and there exist pulmonary cavities, that we observe ulcerations of the posterior surface of the pharynx, and even then the ulcers are small, and quite superficial. They assume a grayish yellow hue, and do not present a surface covered with small eminences, nor the extensive ulceration of scrofulous patches. As to laryngeal phthisis, it has a well-known localization, and follows a regular course, from the arytænoid commissure to the epiglottis. It is especially inter-laryngeal, and travels upwards only during the latter stages of the disease, at a time when there can be no doubt touching the existence of phthisis pulmonalis. We must remember, however, that the coëxistence of scrofula and phthisis is possible, and indeed common enough.

* * * There remains to be considered whether cancer and epitheliomata of the pharynx and larynx may not be mistaken for scrofulous ulcerations. The neoplasms of cancer appear in the form of tumors which obliterate a part of the pharyngeal or laryngeal fossæ: scrofulous lesions do not present any such growths. The offensive smell may also form an element of diagnosis: scrofulous ulcers speedily lose their offensive odor, whilst we cannot mitigate that of ulcerated cancer.

In respect to *treatment*, the relation of my cases has already shown what means seem to be appropriate under circumstances. They may briefly be summed up as follows:

I. Abstinence from a mercurial treatment; or where there exists a positive mixture of syphilis and scrofula, a careful employment of that treatment, alternating with considerable periods of rest, during which iodide of potassium or of iron may be employed.

II. Speedy employment of the general treatment of scrofula: cod-liver oil in large doses, iodide of iron, cinchona, wine, tonic nutriment, exercise in the open air, sulphurous baths.

III. Persevering employment of local treatment by means of the laryngeal sponge, tincture of iron, either pure or mixed with opium. The ethereal tincture of iodoform, chloride of zinc, or concentrated chromic acid, may be applied to the diseased surface. Chromic acid is admirably borne by the mucous membrane of the mouth, pharynx, and even larynx. It exerts a highly powerful action in œdema of the glottis in strongly astringing the membrane, and thus warding off the need of tracheotomy.

Perchloride of iron has been employed, especially in cases of bleeding ulcers.

Nitrate of silver does not seem to be of much benefit, unless when applied with the object of hastening the cicatrization when already in good progress.

Various powders may be blown upon the surface, especially iodoform powder mixed with lycopodium.

Local douches made with the irrigator may be very useful, and exert an anodyne action in painful cases.

In respect to pulverized fluids, I consider their effects to be insufficient in such grave lesions.

The most important point of all is to form, as early as possible, a correct diagnosis, so as to institute a rational treatment and avoid hesitation, loss of time, and above all weakening measures, which are absolutely contra-indicated.

Opening of Bubo with Caustic Potash.—Dr. McNamara (*Indian Med. Gazette—N. Y. Med. Gazette*) opens acute bubo by potassa fusa instead of the knife, and thus avoids the tedious process of unhealthy granulation. The bubo is first covered with several layers of sticking plaster, in which a hole is made half the size of the intended opening, and the caustic is then rubbed on the exposed skin. The spot is covered with sticking plaster, and an opiate given. A black eschar is formed, which is removed in a few days by a poultice, leaving a healthy ulcer, which soon heals by the ordinary treatment. Dr. McNamara is very confident that this treatment will always prevent the production of the pale, flabby and unhealthy granulations which are so common in bubo. The patient suffers very little pain from the caustic used in the manner described.—*Pacific Medical and Surgical Journal.*

Hebra, the celebrated Professor of Dermatology at Vienna, in the course of his clinical lectures (*Gazette Médicale*), made the following curious statements: 1. About ninety-six per cent. of children who have been affected with prurigo die of phthisis. 2. Women who have been for a long time sufferers from eczema of the scalp become, in old age, the subjects of cancer. 3. Variola and varicella are essentially the same disease. He has seen a severe epidemic of variola developed from a single case of varicella.—*Atlanta Med. and Surg. Journal.*

Medical Miscellany.

Dr. J. H. Baxter, late Assistant Medical Purveyor U.S.A., has been promoted to the position of Chief Medical Purveyor. We believe the Surgeon General could not have selected a better man for the position. We understand that the promotion will not interfere with the completion of the report of the medical statistics of the provost marshal general's bureau, now being prepared by Dr. Baxter, and nearly completed.

Bowditch's History of the Mass. General Hospital.—The re-publication and continuation of the History of the Mass. General Hospital, by the late N. I. Bowditch, for which a fund was provided by his will, has been prosecuted during the past year by one of the Trustees, Rev. Dr. George E. Ellis, and the volume will, it is expected, be ready for the press in a few weeks.

The Western Lancet.—Our energetic professional brethren on the Pacific slope have added another periodical to our exchange list, and now offer the *Western Lancet*, which is intended "to supply an important want and to subserve the growing interests of the medical profession" in California and its neighborhood. The *Lancet* will be issued monthly at $3.00 a year, and will contain such a variety of medical and surgical literature as will make it valuable to its readers. The number before us is well and neatly arranged, and contains articles of value.

Division of the Frænum Linguæ.—In division of the frænum linguæ, text books direct us to use a blunt-pointed pair of scissors, to direct their points downwards, to keep as close to the lower jaw as possible, and to avoid the lingual artery. In what might well be made a riskless performance, we are exhorted to provide a special instrument, and to observe a somewhat formidable array of precautions. Any one who has frequently relieved tongue-tied infants after the customary manner, must be aware of the necessity to apply sharp scissors, otherwise the mucous membrane from its elasticity resists complete division. Simple operations are not invariably performed with ease. An infant may render our manœuvres awkward, much to the dismay of the mother and the chagrin of the surgeon. To obviate this difficulty, I can recommend the following practice:—Direct the infant's face towards the light, pass the left index finger along the floor of the mouth (the lower jaw is kept open by being made its fulcrum), along the left side of the frænum linguæ until the latter is fairly put on stretch, so as to make palpable the necessary extent of incision, place the sharp-pointed blade of an ordinary pair of scissors horizontally across the right angle of the mouth, in a line with the apex of the engaged finger, push its point through the membrane on to the tip of the finger, bring the blunt blade hitherto outside the mouth into contact with its fellow, and withdraw them directly forwards protected by the aforementioned finger, and this minor operation is completed.—*Med. Press and Circular.*

An International Medical Congress in 1873.—It is intended to hold an International Medical Congress in Vienna in 1873, under the protectorate of the Archduke Rainer. This will be the third assembly of the kind; the first having been held in Paris in 1867, and the second in Florence in 1869. The programme comprises several important subjects in public medicine; viz., vaccination, quarantine (especially in cholera), the regulation of prostitution, and the sanitation of large towns. There will also be brought forward for discussion proposals for an international Pharmacopœia, and for the establishment, as far as possible, of uniformity of medical education in all countries, with consequent reciprocity in the value of diplomas.—*Brit. Med. Jour.*

To Correspondents.—Communications accepted:—Hydrate of Chloral in Rigid Os Uteri in a case of Miscarriage.—A letter from Vienna.—Epilepsy following Injury to Head.—An account of a New System for dressing Wounds and Amputations.—A letter from Paris.—From our Correspondent in Breslau.

Pamphlets Received.—Report of the Meeting for the Organization of a Territorial Medical Society, held in Denver, Colorado, Tuesday, Sept. 19, 1871, including the Constitution and By-Laws adopted by the Society. Pp. 17.

Deaths in seventeen Cities and Towns of Massachusetts for the week ending March 23, 1872.

Cities and Towns.	*No. of Deaths.*
Boston	144
Charlestown	17
Worcester	28
Lowell	21
Milford	12
Cambridge	22
Salem	11
Lawrence	14
Springfield	7
Lynn	8
Gloucester	3
Fitchburg	9
Newburyport	8
Somerville	7
Fall River	8
Haverhill	4
Holyoke	3
	326

Prevalent Diseases.	
Consumption	53
Pneumonia	45
Scarlet fever	26
Croup and Diphtheria	11
Smallpox	8
Typhoid Fever	7
Erysipelas	6
Measles	4

Of the deaths from smallpox four were in Boston, two in Milford, and two in Cambridge. Of the deaths from scarlet fever ten were in Boston, three in Springfield, three in Worcester, two in Charleston, and two in Milford.

George Derby, M.D.,
Secretary of State Board of Health.

Deaths in Boston for the week ending Saturday, March 23d, 144. Males, 67; females, 77. Accident, 2—apoplexy, 1—inflammation of the bowels, 1—bronchitis, 5—inflammation of the brain, 1—congestion of the brain, 2—disease of the brain, 8—cancer, 1—consumption, 18—convulsions, 4—croup, 3—debility, 5—diarrhœa, 1—dropsy, 1—dropsy of the brain, 3—diphtheria, 1—epilepsy, 1—erysipelas, 4—scarlet fever, 10—typhoid fever, 2—disease of the heart, 9—homicide, 1—disease of the kidneys, 6—disease of the liver, 1—congestion of the lungs, 1—inflammation of the lungs, 22—marasmus, 2—measles, 3—old age, 4—paralysis, 3—premature birth, 3—peritonitis, 2—puerperal disease, 1—smallpox, 4—teething, 1—ulcer of stomach, 1—whoop. cough, 1—unkn., 5.

Under 5 years of age, 48—between 5 and 20 years, 15—between 20 and 40 years, 36—between 40 and 60 years, 17—above 60 years, 28. Born in the United States, 90—Ireland, 40—other places, 14.

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Original Communications.

FATAL HÆMATEMESIS, FROM CIRRHOSIS OF THE LIVER.

By F. Minot, M.D., Boston. Read before the Boston Society for Medical Observation, March 4th, 1872.

Fatal hæmorrhage from the stomach in cases of cirrhosis is so rare that I am desirous of putting on record the following observation, especially as by an error in diagnosis the true nature of the disease was not known until after death.

The patient was a man, 58 years old, a grocer by trade, but who had formerly followed the sea. While in that occupation he had been a hard drinker, but of late had not drunk to excess. He was large of size, stout, and generally healthy. Early in December, 1870, he had an attack of acute tonsillitis, from which he quickly recovered. On the morning of the 23d of the same month, without obvious cause, he suddenly vomited a large quantity of blood. Two hours afterwards he brought up at least a pint more of dark blood, in my presence. The whole amount was perhaps three pints. There was some prostration, but the pulse was pretty firm—about 120 in the minute. There had been no symptom of ulceration or disease of the stomach, of aneurism, or of pulmonary affection. The bowels were regular. The patient was accustomed to drink large quantities of cold water.

I injected a quarter of a grain of morphia under the skin, ordered ergot, ice, sinapisms, absolute rest, and nourishing diet. He slept most of the day, and sweated profusely. No more hæmorrhage.

Dec. 24th.—Comfortable night. No more hæmorrhage. Several dark-looking dejections. After coughing, he vomited a small amount of dark fluid, containing a good deal of "coffee-grounds" sediment. (Tinct. ferri chloridi, with liquor. ammoniæ acet.)

Dec. 25th.—No hæmorrhage. Somewhat restless during the night. Pulse 92. Some hacking cough, which has been noticed since a few weeks.

Dec. 29th.—A little bloody expectoration, which the patient declares "comes from his head." Pulse 93. Tongue moist. Cough more frequent, especially towards night. (Chloral.)

Jan. 7th, 1871.—Since the last report there has been no hæmorrhage until to-day. The patient has not left his room. He has complained much of debility and difficulty of sleeping, for which he has taken chloral in doses of 30 grains, followed by 15 grains of the same, but without much benefit. Last night he took a quarter of a grain of morphia, followed in an hour by 15 grains of chloral, and this series was repeated once. He then fell asleep, and had a comfortable night. The appetite has been poor; bowels in tolerable order, the dejections being colored black, probably by the iron. This morning he was restless; pulse 120; tongue dryish, and covered with a thin, white coat. At 11, A.M., he had nausea, which was soon followed by the vomiting of about a pint of blood. Soon after this, he threw up, in my presence, about a quart of dark-colored blood, partly coagulated, in four or five acts of vomiting. (Morphia subcutaneously; quinine, with sulphuric acid; sinapisms; wine whey.) There was no tenderness below the xyphoid cartilage; but he complained a little of pressure about the left lower cartilage, but that was probably owing to the mustard.

Jan. 8th.—Some delirium in the night; early in the morning he vomited several times, the whole amount being about three pints, of a black fluid, with fine grains, and a few clots; evidently consisting of food (wine whey, milk, &c.), with some blood, and colored by the sulphuric acid. (He had taken no iron for twenty-four hours.) He was somewhat prostrated. Pulse 108, firmer than yesterday. At noon there was a fresh attack of vomiting of blood (after a stool), followed by alarming prostration. At 2, P.M., he was insensible and pulseless, and died at 4, P.M.

Autopsy, 24 hours after death. Abdomen only opened. Stomach contained more than a quart of fluid, stained with blood, and containing some clots, and smelling of brandy. No ulceration, but some appearance of an old cicatrix, an inch in diameter. Near the cardiac extremity, some deep congestion of the mucous membrane; a similar patch of congestion in the duodenum, close to the pylorus; no breach of surface anywhere visible. No large vessels seen in stomach. Liver large, surface rough, being a perfect specimen of the "hob-nail" liver. No ascites. The other organs were healthy.

Foreign Correspondence.

A LETTER FROM VIENNA.

By Patrick A. O'Connell, M.D., Boston.

Can any good reason be given why Boston should be represented in Vienna by students of medicine, more largely than any other city in the United States? Why Massachusetts should have more searchers for medical knowledge here than any other State of our Union? This is the fact now, whatever may be the explanation; and the name of our "City of Notions" is becoming quite familiar to the geographically untutored ears of our German friends about the hospital. The number of American students in general, in Vienna, is quite large. Representatives of North and South, of the East and West are flocking here in goodly numbers, bent upon the same errand of acquiring knowledge; and hereafter it may not prove a matter of slight importance, perhaps, that they find their common bond of nationality strengthened by being strangers together in a foreign land. But there are doubtless others, too, within the reach of your Journal who are contemplating a pilgrimage to this Mecca of the American student, and I have thought that a few words from one who, already, has passed through what they may be looking forward to, might not be uninteresting.

It is now almost five months since I came here, wholly ignorant of the German language, unable to understand a word of what the Professors uttered in their lectures, and as helpless as a child so far as exchanging ideas with the persons whom I came in contact with, in daily life, was concerned. In spite of these disadvantages, however, I feel that already I have derived from my journey benefit enough to repay me for the expense and labor of the undertaking. But I would not advise any one *who does not understand the German language* to come to Vienna for the purpose of study, before learning it.

Upon my arrival, the first item that attracted my notice, professionally, was the immense quantity of *material* at the disposal of the teachers of medicine and surgery; and the very free use that was made of this material, for the purposes of instruction, soon furnished another item that contrasted so strongly with what I had been accustomed to see in America, that I could not avoid a comparison. The poorer classes of the people here, when in health, cannot earn enough to provide for themselves treatment at home during an attack of sickness. The pittance which their daily labor secures for them is scarcely enough to meet their daily wants; and in case of sickness they are compelled by necessity to avail themselves of hospital treatment, and submit to what in America would be termed "*whatever indignities*" the Professors choose to inflict upon them. Thus in the lecture room of Prof. Hebra [on skin diseases] it is not an unusual occurrence for patients—stark naked—to be kept standing and shivering, on exhibition before the class, a half hour at a time. Indeed, the length of time the *patient* is kept waiting is not a matter of consideration at all; his *feelings* do not form any part of the case, and the Herr Professor lectures on *this* until he is fully satisfied, however long it may take, the unresisting individual being required, afterwards, patiently to exhibit himself to the closer scrutiny of whoever may have the desire to examine him. At the lectures on syphilis, in the syphilitic wards, the same freedom of exhibition is exercised on the patients, male and female; they are obliged to expose themselves in whatever attitude will show the disease to the best advantage, and none of them even suspect that they have the slightest right to object to the treatment—to the repeated inspections before the students, or to being made continually the subjects of lectures. And so it is in every department of the hospital. Even the pangs of labor are no protection to the poor female whose case can be made of any use for giving information to the student, or for illustrating any point of theory or practice referred to in former lectures; and this may perhaps indicate how little regard is likely to be paid to patients whose cases would naturally elicit less sympathy.

The lecturer on obstetrics is Prof. Braun. His lecture room communicates directly with the ward in which parturient women are giving birth to children almost every hour during the day. There is, of course, no lack of material; and the Professor's lectures are generally made up of exhibitions of pregnant women, whose cases form the rallying point for his remarks. Women in labor are brought into the lecture room and *delivered* before the class. When the use of obstetric instruments becomes the subject of lecture, it is easy to demonstrate the mode of using them upon the living subject. Abnormal cases of any kind occurring at the lecture hour, or reserved for the lecture hour, are seized upon with eagerness to be presented to the students; and thus they are enabled to become familiar with the kind of cases that may occur to the obstetrician in active practice. The methods and manner of making examinations are explained and illustrated, and when any information can be given to the student, by the neglect, little regard is paid to the feelings of the patient.

While using patients in this manner in the lecture room, as if the principal purpose of their being in the hospital was to illustrate lectures, the students are allowed to visit the sick in the wards also, with a freedom that is unknown in America. In the obstetric department, regulations exist by which any one of the students of this branch, who desires to do so, can familiarize himself with the processes of labor by actual practice in the wards. These regulations have been described, fully, in the Boston Medical and Surgical Journal of May 25th and June 1st, 1871, and therefore do not need a repetition here.

Apart from any regular plan, however, by which students may secure for themselves the right to remain in the wards, and to examine and assist in the delivery of patients, the hospital is always open to students, who can come and go when they please; and even when they do not care to obtain the right to examine and attend to the cases themselves, they may enter the wards at any time of the day or night to see what is being done by others, or to watch cases of interest.

The privilege of examining and practising upon the patients in the parturient ward is very properly limited; limited to twelve students every day, because the safety of the patients renders it absolutely necessary that some limit should be placed upon this license; for it must be remembered that the majority of the students are simply students, i. e. young men who as yet know nothing of practice, and whose rude handling would be very likely to inflict injury on the unfortunate subjects of their manipulations, if no restrictions were placed upon the number to whom the privilege was granted.

When a student obtains the right of practising in this ward, he holds it for twenty-four hours at a time, and is termed a "*practikant.*" Any one who is desirous of doing so—by devoting his time and attention to it—may secure for himself the privileges of "practikant" almost every day.

In a hospital of the size of this immense one of Vienna, through the obstetric department of which alone about 8,000 cases pass annually, it is easy to believe that cases of special interest are likely to occur; and cases of extraordinary interest do occur in the different departments with sufficient frequency to do away with anything like monotony. But the real value of Vienna to the American student, who, having graduated already, and having, perhaps, practised his profession at home, comes here principally to refresh himself in studies already made, or to enable him to fill up deficiencies, here and there, consists in the facilities which exist for taking *special courses* of lectures and instruction on any subject connected with medicine.

The regular Professors pass along in the even tenor of their way, lecturing day after day, and semester after semester, in a *routine manner*, because this has become their regular business for life. Their duties are fixed. Their salaries are to a great extent fixed too; retirement on a pension awaits the close of a life spent in teaching, and unless they are ambitious to acquire a reputation (which, by the by, they have generally achieved or have failed irretrievably to achieve before they become professors), there is no special incentive for exertion. *They* do not give special courses.

Besides the Professors, however, there are two other classes of instructors who are permitted to avail themselves of the advantages of the hospital, and who, being unprovided with salaries, find it convenient to strive for emolument and reputation, at the same time, by giving the special instruction—in short courses of from four to eight weeks—which makes Vienna an attraction to the foreigner. These are, 1st, the *Docents*, who are, practically, aspirants for professorships; and, 2d, the *Assistants* to the Professors.

The *Docents* receive their title—with the privilege of giving courses of lectures or of teaching in the hospital—after having prepared a thesis upon some subject connected with medicine or surgery, and demonstrated their knowledge and ability before the Professors at a public hearing. If the Professors are satisfied with their qualifications, upon their recommendation the Minister of Public Instruction issues the necessary diploma or authorization.

The *Assistants*, of whom each "Abtheilung" or division may have three, are appointed by the Professors themselves, the appointment requiring, however, the approval of the Minister of Public Instruction; but his approval is generally, if not always, a mere matter of form, so that the position depends, practically, upon the Professor altogether. The Assistants receive about two hundred (200) dollars a year for their services.

Thus it will be seen that of the three classes of instructors here, those who are the most prominent before the medical profession at large, those who have acquired a world-wide reputation already, perhaps, and who might be supposed to be the real foundation of Vienna's popularity, have practically little to do with it. Their lectures are fashioned for students who are learning the elements, and who are required to study for years before graduating here, rather than for the graduate who has learned the elements already, and who wishes to acquire special advanced information in relation to particular parts. In illustration of this point it may not perhaps be improper to refer to some of the names of which Vienna is justly proud, and which may make my meaning clear. Taking, for instance, the subject of pathological anatomy, for the study of which, in spite of its immense amount of material, Vienna presents no facilities whatever, the name of Prof. Rokitansky looms up, a power in itself. His reputation as a pathologist, of course, requires no mention from me, for his name is known favorably wherever pathological anatomy is studied. He has a large class, made up, by compulsion, of those students who must submit to his examination before they can graduate; but his delivery, his mouthing of his words, is such that even the Germans have the greatest difficulty in guessing what he wishes to express; and as an instructor he is far from being a success. The other instruction obtainable, in this branch, consists of short courses of superficial lectures given by his assistants, who, in common with the other assistants and docents, make the distinction between their listeners by charging foreigners an increased price.

Thus the famous Professor Rokitansky cannot instruct well, and his subject is too deep for the superficial touch of his assistants. To a person already well informed in pathological anatomy there is, of course, ample opportunity here to see specimens of rare interest every day; but to the beginner it is difficult to make any progress.

Again, another name that is known to fame—Prof. Hebra. His lectures are very amusing, very entertaining, and nobody can question his ability and knowledge; but his teachings are rambling and unsystematic, and the eagerness with which the *special* courses of lectures on diseases of the skin, delivered by *Docents*, are sought for, for the purpose of learning to diagnosticate such diseases, &c., indicates how his well-deserved reputation compares with his value as a teacher. And, not to multiply examples, I may say, also, in reference to Prof. Braun, that there is no method or system in his teaching of obstetrics. Of course, there can be no question as to his thorough acquaintance with his subject, and his self-satisfied air shows, almost audibly, that he is a firm believer in his ability, himself; but his lectures are rambling and wordy; and, were it not that he uses the material at his command so freely, and is ready to grant the students any privileges of examination or observation they wish for, there would be little that he says worth transcribing. He is very popular, however, and his class is always large, because, as in the case of Prof. Rokitansky, the students who wish to graduate are obliged to take his course, and, for all others, the taking out of a ticket for his lectures is a necessary preliminary to the free use of the Parturient ward as "Practikant."

From this it will be seen that the special advantages of Vienna do not consist in its possession of instructors who are already known to fame—of men whose reputation is world wide. *Docents*, of whom, perhaps, nobody outside of Vienna has ever heard; and *Professors' Assistants*—persons of no definite position, as men of science—are the individuals who make it attractive; not so much from their ability, as from the fact that they are permitted to use the patients and material of the hospital for illustrating their special courses of lectures, and because they are permittted to deliver lectures on particular subjects—subjects with which they have made themselves familiar.

Does this statement of facts suggest anything in relation to what might be done for Boston?

Glancing over what I have written already, I fear that, even now, I have made my communication longer than you will care to receive; but when I consider that, excluding the amount of material possessed by Vienna, Boston possesses, in the earnestness and acquirements of many of her young physicians and surgeons, the means of emulating and competing with Vienna in that which draws so many Americans from their homes, I feel that a few additional lines may not be out of place. A new system of medical education has been inaugurated in the Massachusetts Medical College which, I am sanguine, will place its medical student, hereafter, in position to be the equal, if not the superior, of the student of any other similar institution of learning. Why not carry the good work a step farther, and provide for the wants of those who ceased to be called students only because they became graduates and practitioners; but who often feel the need of an opportunity to study, particularly in special subjects of their profession? We have men who would, no doubt, delight in doing in Boston, what the *Docents* and *Assistants to Professors* do in Vienna; and who, moreover, could do it with at least equal ability. Why not inaugurate some such system for the benefit of the practitioner who may need refreshment of this kind? Every consideration seems to recommend it. The standard of our general practitioners would certainly become elevated by the special opportunities which a short vacation to Boston would offer them, then. The special teachers would have an opportunity to develop their abilities, and have a strong incentive to qualify themselves the more thoroughly for their work; while they would, also, become the more fully fitted to occupy the responsible positions of professorships, when vacancies offered; and the removal of the necessity of a journey to Europe, to acquire what might be acquired, so readily, at home, would entitle the system to the gratitude of many a poor aspirant, who would like to make a short vacation (all he can afford), and add to his knowledge, if such were possible.

Boston is competent to this task, if her *Professors* will act in the matter, earnestly, and without the fear that their own positions will be trespassed upon. Excepting its supply of material and its privilege of abusing patients, Vienna possesses no advantage that Boston and Yankee ingenuity may not develope; and by the inaugurating of a system of instruction of this kind in earnest, he who gives will become blessed, equally with him who receives.

Reports of Medical Societies.

BERKSHIRE DISTRICT MEDICAL SOCIETY. J. F. A. ADAMS, M.D., SECRETARY.

May 31st, 1871.—*Embolism of the Anterior Tibial Artery.*—Dr. Paddock, of Pittsfield, reported the case of J. S. T., merchant, aged 20. While walking from his place of business to dinner, Dec. 16th, 1870, he was suddenly seized, when within a few rods of his house, with palpitation of the heart and dizziness, followed immediately by a very sharp pain, extending down the left leg, and becoming located in the region of the anterior tibial artery. This pain was so severe that the leg below the knee was immediately benumbed, and he was obliged to lean against a tree, until assistance arrived to help him home. He was seen by Dr. Paddock an hour later, and was found by him complaining bitterly of pain in the leg; said he had never in his life suffered such pain. He was ordered morphiæ sulph. one-fourth of a grain every four hours, by stomach, and hot fomentations to the leg.

The following morning, Dr. Paddock found him groaning with pain, the anodyne not having produced a moment of sleep during the night. The left leg and foot were somewhat swelled, the skin was drawn tight over the whole leg, from the knee downwards, presenting a peculiar, glistening white appearance, and the limb was excessively tender throughout, but particularly so over the course of the anterior tibial artery. There was considerable febrile excitement, skin hot and dry, tongue covered with a whitish coat, and he was quite frequently taking large draughts of water to quench his thirst. A hypodermic injection of one-half of a grain of morphia just below the knee soon relieved his pain, but did not mitigate the exquisite tenderness, which seemed more like extreme hyperæsthesia than inflammatory tenderness.

The previous history of the patient is as follows: When 13 years of age, he had a severe attack of inflammatory rheumatism, involving the heart, and leaving thickening of the aortic and mitral valves, as indicated by aortic and mitral regurgitation. From this time up to the date mentioned above, a period of seven years, he had had repeated attacks of inflammatory rheumatism, always attended with heart symptoms, and a gradual increase in the size of the heart; the apex beat finally being three inches below and two inches to the left of the line of the nipple, the whole side of the chest heaving at each systole: The loudest murmur was heard at the apex during the first sound, a less distinct one immediately following the second sound, which was quite feeble.

At the time of this last attack, he was enjoying his usual health, and was able to conduct quite a large mercantile business; indeed, only a few hours before this attack, he had lifted a barrel of flour from the counter to the floor. At this time, Dec. 16th, no definite diagnosis was arrived at. However, a probable diagnosis was made, which since proved to be correct, namely, that an embolus became detached from one of the valves of the heart, probably loosened while lifting the barrel of flour, and had lodged in the anterior tibial artery.

For the first ten days after the attack, the swelling of the leg and foot gradually increased, the pain continuing unabated, except from hypodermic injections of from one-half to one grain of morphia. External applications of chloroform, various anodyne liniments and fomentations, produced no apparent effect. On the eleventh day, a faint discoloration of the skin over the course of the anterior tibial artery was first noticed, extending from the level of the lower end of the tibia eight inches up the leg, or about half way to the knee. This discoloration gradually became darker, and finally the skin became gangrenous over a space eight inches in length, and about two in breadth, and, in about six weeks, the skin and all the subjacent tissues had sloughed out, including the tibialis anticus, extensor longus pollicis, and the flexor longus digitorum muscles, and the anterior tibial artery, leaving the external surface of the tibia and the internal surface of the fibula perfectly bare for eight inches in extent. Both these bones were perfectly healthy in appearance, and continued so throughout, except that the periosteum gradually shrivelled up and came off from the exposed surface from exposure to the air; yet there was no necrosis or caries of the bone. The slough was several weeks in separating. When this was accomplished, the edges of the wound began to granulate feebly, but it never filled up much, the edges of the wound healing over down to the bones, which were left bare.

The patient was confined to his bed nearly all the time till May 17th (five months). The leg continued very much swelled; sloughing took place between the toes, on the heel, and wherever there was much pressure; he could not let his foot hang down enough to sit up in a chair, and the only way he could be kept comfortable was by hypodermic injections of one-half a grain of morphia every eight hours. His appetite continued good throughout, and he certainly gained somewhat in flesh.

On the night of the 17th of May, he awoke in considerable distress, and when his attendant returned from an adjoining room, whither he had gone for a glass of water for him, he found him dead.

The autopsy was made twelve hours after death. Body tolerably well nourished; lungs healthy; a pint of serum in each pleural cavity; four ounces of serum in the pericardium; the heart very large, the veins on its surface considerably enlarged and congested; heart full of venous blood; the heart, emptied of its contents, weighed 18½ ounces; the wall of the left ventricle was much hypertrophied; right ventricle very thin; both auricles were very large and their walls much thickened. The aortic valves were indurated and contracted, not more than half closing the aortic orifice; the mitral valve was completely ossified; a ring of bone occupied the position of the valve, without the possibility of the least motion, the opening through it being about one fourth of an inch in diameter. On the internal wall of the left auricle, about half an inch from the edge of the mitral valve, was a fleshy vegetation, of a bright red color, about the size of the little finger-nail, and projecting or rising from the surface of the endocardium about an eighth of an inch. This was partially detached from the endocardium, and the free edge was ragged, presenting the appearance of having been recently torn. The attached portion was readily peeled off from the endocardium with the finger-nail. The mucous membrane of the stomach was found considerably congested. The liver was much enlarged, weighing eight pounds, and, excepting some congestion, was not diseased. The kidneys were both somewhat enlarged; cortical substance pale, thicker than natural, and containing, in each kidney, an abscess the size of a small filbert. The tibia and fibula were healthy, and apparently well nourished, with the exception of a very thin scale of bone denuded of periosteum and exposed; this did not contain capillary bloodvessels. The anterior tibial artery was absent from the ankle up to within three inches of the recurrent tibial, which was considerably enlarged. These three inches of the anterior tibial were filled with a white fibrinous clot. The brain was not examined, but the sudden death was supposed to have resulted from a portion of the auricular vegetation becoming detached and lodged in one of the cerebral arteries.

June 28th, 1871.—*Cancer of Abdominal Viscera.* Dr. Miller, of Stockbridge, described the autopsy of an old man who had long been subject to attacks of colic. The liver was found greatly enlarged, with an ulceration upon its upper surface. On the under side of the liver was an irregular, cancerous formation. The gall-bladder was obliterated, and its place was occupied by an abscess holding half a pint of pus and twenty-three gall-stones, one of them weighing seventy grs. The colon was contracted, its walls thickened, and adherent to the abdominal walls. Other portions of the intestines were also adherent. The pancreas was full of scirrhous deposit, and the stomach had a similar deposit in its walls. An old scrotal hernia existed, and the appendix vermiformis cæci was elongated and lay in the scrotum.

July 26th.—*Two cases in which Fœtal Bones were passed by the Rectum.* Dr. Holcombe, of Lee, presented for inspection fœtal bones from two cases, which he reported.

Case I.—*Retained Fœtus.* The patient died some months ago, and Dr. Holcombe made the autopsy, though he had never seen her during life. She became pregnant at 35, and went on to full term, without anything unusual occurring. She then had symptoms of approaching labor, but labor did not occur. Four or five months after, she had what was called typhoid fever. After this, she was never free from diarrhœa, living for two years after the time of expected confinement. She spoke several times of having passed bones from the rectum, but none were saved. At the autopsy, the uterus was found four inches in length, with spiculæ of bone projecting through its anterior wall. In the posterior wall was an opening, from one to one and a half inches in diameter, into the rectum. The uterus was filled with a mass of bones, consisting of the cranial bones, jaw and ribs, most of the long bones being wanting.

Case II.—*Extra-Uterine Fœtation.* The patient was a woman 25 years old, residing in Philadelphia. Twenty-five months ago, she had what she supposed to be a miscarriage at the fifth or sixth month. She had profuse hæmorrhage, and passed what her physician said must be the placenta; but no fœtus was found. The os uteri was mechanically dilated and the uterus explored, but proved empty. Since then, she has menstruated regularly, has had diarrhœa or constipation, emaciation and pain in the bowels. A few days ago she came to this county, and came under the care of Dr. Holcombe. Yesterday, for the first time, she passed some bones from the rectum, consisting of ribs, vertebræ, a radius and a femur. Dr. H. has made a careful examination, but finds nothing in the uterus. He supposes the case to be one of extra-uterine pregnancy.

Note.—Shortly after this report was made, the patient died, and an autopsy was made. The remaining bones of a fœtus, with the soft parts almost entirely absorbed, were found occupying a sac attached to the upper and posterior portion of the uterus, and connected with the rectum by an oval aperture, one inch in length and nearly as wide.

Jan. 31st, 1872.—*Large Gall-stone.* Dr. Smith, of Pittsfield, exhibited a gall-stone, weighing 107½ grs. It completely filled the gall-bladder, of which it was an accurate mould, and sent a stem a short distance into the duct. The gall-bladder was tightly contracted about the calculus, and did not contain a particle of bile. The patient was an old lady, who, for twelve years, had suffered from abdominal pain. There was also found an extensive scirrhous deposit in the omentum, mesentery, and coats of the large intestine and rectum.

Selected Papers.

RESECTION OF THE ŒSOPHAGUS.

By Dr. Theodore Billroth. Translated from the Original Monograph.

The first autopsies which I made of persons who had died of carcinoma of the œsophagus, suggested to my mind whether it might not be possible to resect portions of the œsophagus. Cancer of the œsophagus does not generally extend itself to the lymphatic glands; it is mostly confined to the primary seat of the disease. In order to prevent death from starvation, in patients afflicted with this disease, we are obliged to introduce a bougie into the œsophagus and dilate the constricted parts; nevertheless the trouble, by this means, is often aggravated, as ulceration and softening of the new growth is encouraged by the irritation produced by the frequent introduction of the bougies. There are not, indeed, very many cases of carcinomatous stricture of the œsophagus that are situated sufficiently high to admit of resection; but when such a case does occur, a resection of the diseased part might save the life of the patient. I thought that after the resection of a portion of the entire circumference of the œsophagus, the lower end might be drawn up by cicatricial contraction, and that an annular stricture of greater or less width be formed, which by means of bougies might be dilated without danger. I thought the process of healing to be similar to that after external urethrotomy, in a case where a portion of the urethra had been destroyed by gangrene or ulceration, and yet, after the operation, recovery and a complete restoration of the function may take place. Cases of obstinate stricture of the œsophagus, also, whether originating in consequence of annular ulcers arising from some unknown cause, or as the result of caustics, might give occasion for removal, or, at least, for incision. Like most cases of stricture of the urethra, those of the œsophagus may be dilated with bougies; yet there are some instances in which the object is not gained by simple dilatation. In such cases I have attempted dilatation with bougies made of tin, and with long œsophagus forceps, but with no great success, and sometimes serious reaction has resulted. I have often thought, also, of an instrument for internal œsophagotomy, but have given up the idea, as I regarded the operation as hazardous. In the meantime, Dolbeau and Trelat have devised such instruments (œsophagotomes), and in several cases have employed them with success. M. Bruns performed external œsophagotomy in a case of stricture, and, although the patient finally died of pneumonia, his life was prolonged for a time by means of the operation, which in my opinion proves the propriety of the operation in similar cases.

Two accidental wounds of the œsophagus which I had an opportunity to observe at Zurich, together with an œsophagotomy which I performed here in Vienna for the removal of a foreign body, cause me to regard as insignificant the danger of injury of the œsophagus. In a monograph by Dr. Cheever (Boston, 1867), are collected the results of the œsophagotomies that have been published, and they give an exceedingly favorable aspect to the operation.

In a case of ulceration of the larynx in which there was dysphagia, and where it was impossible to introduce a sound, John Watson, of New York, performed œsophagotomy, and fed the patient for three months by means of a tube introduced through the wound into the stomach. The patient then died of pneumonia. In the case of a man extremely reduced in strength, with a deeply situated cancer of the œsophagus, whom I had under my care during the last semester in Vienna, it was finally found impossible to introduce the sound. As up to the present time all cases of gastrotomy in the human subject have ended fatally, I could not decide upon this operation. I performed œsophagotomy, hoping to introduce a tube through the wound, and, by rotating it, to press it more easily through the valve-like situated projections of the new growth. In this I succeeded, but it was too late. The patient did not rally, and died the day after the operation. Not long before this case, I was obliged to dismiss as incurable another man who had a carcinomatous stricture of the œsophagus situated a little behind the cricoid cartilage. As it was possible still to introduce bougies, operative interference was not immediately indicated. The patient was much pleased, as he was able himself to introduce the bougies, and he afterwards experienced such great relief that he thought himself well. He could not be induced to remain longer in the hospital, and he did not afterwards return, as he had promised. In this case the resection proposed by me of the diseased portion of the œsophagus would probably have been practicable. The idea had occurred to me of performing this operation at first upon a large dog, in order to observe the appearance of the cicatricial tissue; but I thought it impossible in an animal to dilate the subsequently formed stricture with bougies.

The removal of the trachea, which Dr. Czerny performed upon dogs, and the subsequent attempt to introduce an artificial trachea, first proved to me how kindly dogs submitted themselves even to an operation. We made some experiments in introducing the œsophageal sound into some dogs, and these experiments succeeded so astonishingly well that I decided next to perform upon a dog the operation designed for man, in order to prove its practicability and its anatomical results, which could not be essentially different from those in the human subject.

The first operation of the kind which I performed myself was made upon a middle-sized hunting dog, and appeared to have the desired result; but on the fifth day after the operation the servant, whose duty it was to inject the milk into the stomach through a tube introduced through the wound, had the misfortune to thrust the tube into the mediastinum, and inject into it the quantity of milk intended for the stomach. In consequence of this *error loci*, the animal died of mediastinitis and pleuritis. I therefore forego describing the details of the operation in this experiment. The second operation was performed by my assistants, Drs. Czerny and Menzel. On the 21st of April, 1870, a large yellow dog was placed under the influence of chloroform. The œsophagus, which was quite deeply situated, was exposed on the left side of the neck, and then with the finger and the handle of the scalpel it was separated from its connections to the extent of about two inches. The œsophagus was now cut across *in toto*, and an inch and a half of its calibre completely removed. The lower end was now fastened to the skin at the inferior margin of the wound by two incisions, in order to introduce more easily the œsophageal tube, for the purpose of artificial nourishment. The food introduced into the œsophageal tube consisted wholly of milk. As soon as the 26th of April, it was possible, by the aid of a finger placed in the wound, to pass a soft bougie through the mouth into the stomach; later, this could be done without such assistance. The sutures were removed in about a week after the operation. The enormous discharge of mucus through the wound was remarkable, appearing oftentimes as if mucus came up from the stomach. The wound gradually contracted externally, the discharge of mucus entirely ceased, and the healing of the wound would certainly have followed much more rapidly if we could have had a separate room for the dog. As this was impossible, he always partook of the same food as the other dogs. He could not swallow the masses of bone and meat. They stuck fast in the wound, or just above it, and produced for some time a not inconsiderable irritation. It often occasioned much trouble to remove from the constantly narrowing wound in the neck the masses which could not pass through. It was not till the end of June that the œsophageal fistula perfectly closed. The passage through the œsophagus was kept open by the daily introduction of the largest English œsophageal bougies, which are of the diameter of a large index finger. After the healing of the wound the dog was able to eat meat, potatoes, &c., to swallow well, and was in a good physical condition. Care was given to avoid setting bones before him.

On the 26th of July, I killed the dog with cyanide of potassium. The plate accompanying this paper shows that my supposition concerning the healing process was correct. A simple, annular, very thin cicatrix, scarcely half a line wide, was found, which had been subjected to dilatation.

After such results, I should consider myself justified in undertaking upon man the resection of the œsophagus, in a case which I deemed proper for the operation.

Vienna, April 23, 1871.

Bibliographical Notices.

A Text-book of Pathological Histology: An Introduction to the Study of Pathological Anatomy. By Dr. Edward Rindfleisch, o.c., Professor of Pathological Anatomy in Bonn. Translated from the Second German Edition, with permission of the Author, by William C. Kloman, M.D., assisted by F. T. Miles, M.D., with two hundred and eight Illustrations. Philadelphia: Lindsay & Blakiston. 1872.

In 1869, the first German edition of this work was completed; in the following year, the second edition made its appearance, thus giving proof of the demand for a work of this nature. It is unnecessary to say that the great advance made of late years in pathological anatomy has been due in the main to the improvement in instruments and means of investigation, the microscope and experimental pathology. Where we once observed form, consistency and color in general, we now regard the same in detail. The spleen, for instance, is not regarded as an organ, but as a complex whole, made up of capsule, trabeculæ, bloodvessels, pulp and follicles; the kidney is separated not only into cortex and medulla, but in the cortex one looks at malpighian corpuscles, at straight and convoluted tubules, &c. So with regard to other organs, as the liver, the lungs and so on. Even a slight acquaintance with normal or pathological histology compels one to see more, or at all events to look for more than would otherwise be the case. Normal histology, too, though it should spontaneously precede the pathological, at times is actually driven to the front from the demands made upon it by the latter. It became necessary, for instance, that a connective substance should exist in the brain, in order that an additional point of origin should be found for pathological growths; the neuroglia thus became recognized. Certain tumors were observed, whose structure resembled that of none of the well-known tissues; the counterpart was found in the whartonian jelly. Thus the mucous tissue was added to the other members of the group of connective substances.

Rindfleisch has the credit of placing in the hands of the student a valuable assistant, an admirable compendium, not only of the results of the investigations of others, but also of his own. As Professor of Pathological Anatomy at Bonn, a position acquired only by proof of his ability to fill it, he is able to speak with authority on well-known truths, and demands a patient hearing, when his testimony on disputed points is presented. Not only is he well known as teacher, but also as an earnest student, endeavoring to add to the existing amount of knowledge as well as disseminating more widely that which has already risen to the surface.

His book is divided into a general and special part; the first with justice made as brief as possible, where so much depends upon theory, the latter giving a more or less complete description of the alterations of the tissues of the organs and systems of the body.

In the preface to the second edition, from which the present translation is taken, Rindfleisch resents the accusation of being older than he is; the careful reader will occasionally find that he seems younger than he ought to be.

In opposition to Virchow, cloudy swelling is considered as a passive process, a corrosion, in consequence of which the dissolved albuminates of the protoplasm coagulate and thus become visible. Virchow, as is well known, regards the granules found in such cases as an excess of those normally observed in the cell, their presence being due to increased activity of the cell, the result of irritation.

Rindfleisch speaks of the mucoid and colloid degenerations and of the amyloid infiltration. The question remains still an open one whether mucus necessarily arises from degeneration, or whether it may not be also a proper secretion. In considering the colloid degeneration, it must be regarded as an omission that no mention is made of the possibility of the colloid material making its appearance outside the cells, in the intercellular substance, in a similar manner to lime salts.

To the physician in general and to the surgeon in particular, the section with regard to pathological new-formations will present much of interest. These, according to the author, may be regarded as "an excess of the physiological new-formation."

Virchow's famous doctrine, *Omnis cellula e cellula*, is accepted by Rindfleisch; he states the question at present is, from what cells are the secondary cells produced? Von Recklinghausen and Cohnheim have presented facts which suggest the white blood-corpuscles as active agents in the new formation of tissues, without thereby excluding the connective-tissue corpuscles from taking part in these processes.

The history of normal growth is referred to as a type of the development of pathological products. With regard to the origin of epithelium, Rindfleisch is inclined to consider it as developed from migrating cells. The more recent observations of Wadsworth, Eberth and Hoffman suggest that the proliferation of preëxisting epithelial cells is the more probable method of origin. That migratory cells play a certain part is probable; whether directly or indirectly, by immediate conversion or by furnishing protoplasm, formative material, is uncertain.

With regard to the origin of pus, Rindfleisch says: "The chief mass of the pus is everywhere formed by the emigration of colorless blood-corpuscles out of the vessels; only that, first, the way which the wandering cells take, is directed in the one case towards a free surface, in the other towards a point situated in the parenchyma of connective tissue; and that, second, in the production of pus upon mucous and serous membranes, the participation of the epithelium in the production of pus cannot be excluded. * * * It has not been proven that all pus corpuscles originate directly from the vessels, but upon the one hand a formative irritation of the stable connective-tissue corpuscles has been proven, the breaking up of which into wandering cells is made probable."

The following description of the formation of an abscess is admirable: "The cells, primarily more uniformly dispersed in the inflamed parenchyma, leave the place of their development, and from all sides move together to a certain central spot, in which afterwards the suppurative focus (abscess, apostema) appears. By this locomotion upon the one hand, the spontaneous mobility of the cells is brought into play; upon the other, however, a greater or less transudation from the vessels, which accelerates the movement and determines their direction as well as the point of accumulation. If this flowing together has endured for a length of time, there arises at the point of conflux a knobby induration; within this the vessels are compressed, the parenchyma becomes pale. With the supply of blood, however, nutrition also ceases, softening and fatty degeneration forthwith set in; in the abundant transudation the connective tissue fibres melt down and the cells loosen themselves. The palpating finger now feels fluctuation, the suppurative focus has been formed, or, to speak technically, the abscess is ripe."

With regard to the etiology of tumors, Rindfleisch grants "that it is more a thing of individual conviction, whether we will follow him who regards the tumor as the localization of a preëxisting dyscrasia, a tumor-producing disease, or him who holds the local affection in all cases as the point of origin and departure of the disease producing the tumor." The term "histioid tumors" is applied to what one usually speaks of as morbid growths, excrescences. The special products of syphilis, typhus (typhoid) and tuberculosis, are considered as arising from a "specific inflammation."

The term malignancy, so often used, so ill-defined, is thus regarded. Those tumors are malignant "which are not only dangerous to the sufferer, but which threaten the life of the patient in a very decided way, in that they occasion a constitutional disease (cachexia) which is incompatible with the salutary continuance of the entire nutrition." With regard to carcinoma, Rindfleisch understands by the term an essentially "clinical character that is anatomically but imperfectly expressed; i. e., only in the obligatory alveolar structure." He also considers that the majority of carcinomas proceed primarily from the epithelial surfaces, as skin, mucous membrane, or from secreting glands.

In speaking of epithelial cancers, it is asserted that "metastasis is probably in all cases caused by the migration of young epithelial cells, which cause at the place of their settlement an epithelial infection of the indigenous elements of the vascular connective-tissue system."

In the special part, the anomalies of special apparatuses, systems, and organs of the skin, mucous and serous membranes are treated of.

In the section on Diseases of the Heart, Rindfleisch's observation made in 1866 is referred to, wherein he states that the "small depots of softening," of the size of a pin's head, at times found in pyæmia, are not miliary abscesses, but are made up entirely of vibriones.

This observation has been recently confirmed by Von Recklinghausen, who has succeeded in discovering as the cause of the so-called small abscesses in pyæmia, puerperal fever, typhoid, acute articular rheumatism, urinary infiltration and pulmonary gangrene, miliary accumulations of small organisms, which he calls micrococci. Von Recklinghausen considers these bodies to be identical with the forms occurring in diphtheritis, as described by Buhl, Oertel and Nasiloff, with those occurring in cystitis and pyelo-nephritis, as described by Traube and Klebs. That they are not metastatic in Virchow's sense is probable, from the fact that they are found outside the vessels as well as in them, in the interstitial tissue, and in the pulmonary alveoli. Observations are still being added by Buhl, Waldeyer and Klebs, showing that similar bodies are found in furuncular inflammation of the stomach and intestine, in the blood- and lymph-vessels, between and in the crypts. Klebs, still more recently, considers that these fungi take a very active part in producing the septicæmia often following gun-shot wounds, and, in fact, calls the bodies found in such cases microsporon septicum.

Prof. Richter, of Dresden, thus speaks of these micrococci, which now occupy so prominent a place in pathology. "These occur in all the natural kingdoms, in part as small points, round and oval corpuscles, ciliated little bodies, staff- and club-shaped formations, in short, with most manifold forms, even of threads and spiroids; they occur in slime (protoplasm), and receive the most varied names—zoöglea, vibrio, bacterium, bacteridium, in France microzymes, granula organica, fermentifica, organites, coccozymes; the gregauries are also to be regarded as micrococci. Are the micrococci green, they are often called palmello; the micrococci at the bed of the ocean were called coccolithes and coccospheres."

With regard to the origin of diphtheritis, Rindfleisch expresses himself as a friend to the fungus view, but does not regard the evidence thus far received as sufficient to prove the supposition.

As the starting point of round ulcer of the stomach, the author regards the hæmorrhagic infarction.

The subject of tuberculosis will excite the interest of all readers of this work. With a fair statement of the views of others, Rindfleisch also brings forward such as may be considered as peculiar to himself.

With so much to interest the reader, valuable information as well as entertaining theories and suggestive ideas, it is unfortunate that the work of the translators could not have been differently performed.

German ideas in English costume may be somewhat obscure at best; still were idioms replaced by idioms, if necessary, and did the translators know what the author desired to express, the thoughts of the latter could better be appreciated by the reader.

Even to one tolerably familiar with the views expressed, but little information can be obtained from such a sentence as this:—"On the contrary, I can certify that there are cicatricial epitheliums, in which the cellular villi characteristic of these tumors proceed from the thin cicatricial epidermis." Referring to the original, light is obtained; the desired readers of the book will not have the same privilege.

This one great fault of the American edition presents itself only too forcibly throughout the entire volume. Print, paper, and especially the plates, are good. Indeed, the latter are such excellent copies that it would seem as if the blocks must have been obtained from Leipsic. Should such a supposition not prove correct, the engravers have reason to be proud of their success.

Medical and Surgical Journal.

Boston: Thursday, April 4, 1872.

THE EARLY STAGES OF CALCULOUS DISEASES.

In a clinical lecture delivered at University College Hospital, and published in the *Lancet* of Jan. 13th, ult., Sir Henry Thompson has presented his views concerning the earliest stage of the development of urinary calculi and the appropiate treatment in such cases. After stating the distinction between calculi of local and those of constitutional origin, he makes the general observation that nineteen out of twenty of the latter class have uric acid for their basis and depend on a uric acid diathesis as strongly marked in its hereditary tendency as are tubercular or cancerous cachexiæ; so that, in a large majority of patients suffering from stone, there will be found the history of gravel or gout (the two diseases being identical), in a preceding generation.

The first sign of this uric acid diathesis in a patient is the persistent presence of the urates in the urine, independently of any temporary dietetic disturbance. This condition tends to develop into a more serious state, characterized by the habitual passage of crystallized uric acid in the urine, quaintly described by the author as having the appearance of cayenne-pepper particles. Sooner or later, these uric acid deposits become aggregated in the kidney or bladder, and constitute the disease popularly called "gravel."

These primary stages of calculous disease are amenable to successful treatment. The simple general rule, too often followed in such cases, namely, the administration of alkalies, either in artificial or natural combination, results indeed in the disappearance of the urinary deposit, but it is only a temporary expedient whereby the disease is checked for the time being. The surplus deposit of uric acid in the urine is neutralized, but the constitutional state persists. The alkaline treatment, therefore, is only apparently effectual.

The real pathology of these cases suggests the proper course of treatment. The origin of what we call gouty symptoms as well as of a persistent superabundant uric acid deposit in the urine is due to defective assimilation on the part of organs associated with or forming the primæ viæ. The liver or some allied organ does not do its duty as an excreting medium, and the kidneys have an undue amount of work forced on them. The solid matters of the urine, or rather some of its ordinary constituents, are augmented, and among these uric acid is in excess, being eliminated in the urine not only in solution but in crystalline form. In other words, the formation of a large majority of renal or urinary calculi is the result of an active and capable organ vicariously relieving some other organ which is torpid. The true remedy, therefore, is, not to stimulate the kidneys, already overworked, but to use such agents as will correct the excretory action of the primæ viæ without depressing vital power, the liver receiving special attention.

To this end, the use of natural mineral waters, containing in solution sulphate of soda and sulphate of magnesia (the springs of Friedrichshalle and Carlsbad, for example), is regarded as preferable to the exhibition of drugs—taraxacum, mercury, nitric acid, the alkalies and the like, and to the employment of Vichy and other waters containing carbonate of soda as their chief active ingredient. The use of the waters alluded to should be continued six to eight weeks at a time, and the daily dose should be just sufficient to produce one daily active movement of the bowels. This treatment, combined with the very sparing use of alcoholic, saccharine and fatty forms of diet (the hydrocarbons), results successfully, according to the distinguished lecturer, in a large proportion of the cases presented, in checking calculous disease in its early stages.

J. T. Bradlee, Esq.—We gladly give place to the following well-deserved resolutions passed by the Medical Staff of the City Hospital on the retirement of Mr. Bradlee:—

City Hospital,
Boston, March 17, 1872.

J. T. Bradlee, Esq.:—

Dear Sir,—At a meeting of the Association of the Physicians and Surgeons of the City Hospital, held this day, it was unanimously

Voted, That in view of the resignation of the President of the Board of Trustees, after eight years' connection with the hospital, the Secretary be instructed to convey to Mr. Bradlee an expression of the regret of the Medical Staff, that he feels obliged to leave us.

It would be doing injustice to our own feelings to let the occasion pass without expressing our appreciation of his long and devoted services to the institution, and of the pleasant relations which have always existed between him and the medical staff.

To him, and to all the other permanent members of the Board of Trustees, we feel that the hospital owes much of the honorable success it has achieved.

Respectfully,
David W. Cheever, *Sec.*

Messrs. Editors,—My attention has been arrested by the little notice of the "Private List" on the last page of the Journal for March 21. A copy of the same was left upon my table also. In glancing over the first few pages, I came across the name of one of my own patients, who has been such for over ten years, and who never refused to pay his bills, although at times he has been straitened by circumstances not within his control. This leads me to urge upon those members of the profession who subscribe to support the black list, the necessity for remembering the great injustice which may be done by one who has been justly discharged by a patient. It is the cheapest way of venting one's spite. Were the names on the black list accompanied by the names of the accusers, it might be of service. Not so endorsed, is not the list likely to become a tool in the hands of malice?

On the same page of the Journal occurs an extract from the Philadelphia *Med. and Surg. Reporter*, entitled "Cold Water for Chancres." Has Dr. Hémard said what he knew to be false, or has his translator in the *Med. and Surg. Reporter* tried to misrepresent him?

Let us read the passage with his own notes, as given us in that journal.

Text. "For twenty years he has used, and *always with success, no other treatment* than washing with cold water."

Notes. *No.* 1. Sometimes he medicates the water with a little chlorate of potash or carbolic acid."

No. 2. "In a few days he covers it with a thick layer of collodion."

Notes by your humble servant. (*No.* 1.) I *never* drink anything but cold water.

(*No.* 2.) But sometimes I have it boiled, and medicate it with tea or coffee.

(*No.* 3.) At dinner time I occasionally add a little whiskey. Yours truly,

Med. I. Cuss.

The Healing of Wounds.—At a recent meeting of the London Medical Society, Dr. Richardson presented his views concerning one of the most important departments of surgical practice, and one concerning which there has always been the most varied theorizing. The following abstract of his paper appears in the *Med. Press and Circular* for Feb. 21st ult.:—

On approaching the question of revision of this subject, the author held—1st. That it was necessary to exclude all extrinsic or imaginary attempts at cure, and secondly to avoid trusting blindly to what was called the "*vis medicatrix naturæ*," for Nature always pursues her own course, without respect to ease or pain, life or death. After this, Dr. Richardson proceeded to illustrate from clinical observation the results of healing in extreme cases by the first intention, and then he put the inquiry—Why? If in one case of the extreme kind named there could be cure by the first intention, there should not be such cure in the majority of cases? Why, in short, should success by this method of cure be the exception instead of the rule? Two sets of causes stood in the way, one set remediable, the other irremediable. The remediable obstacles to recovery by the first intention are—want of care in bringing divided surfaces into perfect apposition; the too free use of water in dressing; the too prolonged exposure of wounds to the air; too much manipulation of the surface of the wound; the leaving of long ligatures within the wound; the imperfect closure of wounds from the air; the too hasty removal of dressings; and, lastly, and most important of all, error of judgment on the part of the dresser in respect to the question whether there be, in the case to be treated, sufficient continuity of surface to warrant the attempt to heal by the first intention? The irremediable causes preventing healing by the first intention are—nervous lesions influencing the vascular supply of the injured part; the accidental introduction into the wound of decomposing or other foreign matter; or the generation of organic poisoning product within the body. These causes lie apart from the science and art of dressing wounds, and may be left for a special and future discussion. For the promotion of healing by the first intention, the author contended that the dressing employed should have four distinct qualities; it should be colloidal, elastic, impermeable to air, and styptic. He had himself introduced a fluid possessing these properties, under the name of "styptic colloid," and it answered well, but he had no prejudice in respect to it specially, the principle on which it was constructed being conceded. Healing by the second intention formed the second part of Dr. Richardson's communication. Here, again, the rules named in relation to healing by the first intention were considered, and it was maintained that the same colloidal dressing was as effective in curing by the secondary as by the primary process, the difference of application being that the whole of the exposed surface was to be treated with the colloidal fluid. After giving a series of cases of rapid healing by the second intention, cases, in some of which bone had been exposed, and even a joint laid open, and after touching briefly on the addition of iodine to colloidal solution in some particular cases, the author placed before the Society a summary of his arguments in a series of short propositions, and concluded by insisting that medical men lived to cure all they can, and to try to cure everything until they succeed, through whatever tribulation they may pass in the labor. But if they could become unanimous in respect to the current progress of medical science and art; if in this simple matter of treating wounds, for instance, they could be of one mind, they would strengthen their bases of operation, clear up as they went on, and would go on more collectedly, noiselessly, and powerfully towards new and certain conquest.

Aspiration in Retention of Urine, Hydrocephalus, &c.—It is stated *(Med. Times and Gazette)* that this method "of treatment has been extensively tried in Leeds, by the aspirateur of Dieulafoy. Under Mr. Teale, we saw the case of a man, aged 23, who was suffering from synovitis of the knee of some years' standing. This, by some means or other, became acute; the joint was tapped by the aspirator, and four ounces of pus were removed. The temperature was not in any way affected, and, ten days after, another tapping was required, when four ounces and a half of fluid were removed; but neither did this afford relief, and a week after the joint was laid open on both sides, and it is now a question of excision of the joint or amputation of the limb. It is but right to add that this mode of treatment has been very successful in many cases of a similar kind; but the rule seems to be that, if good is not done at the first tapping, there is but little hope of subsequent success.

"The same treatment has been successfully employed in other kinds of cases. Thus, in Mr. Teale's hands, it has been used for tapping the bladder above the pubes in cases of retention of urine, with great success. A patient we saw had been suffering from stricture, when suddenly retention was superinduced. The aspirator was used above the pubes with immediate and permanent relief. Mr. Samuel Hey operated in the same way in a similar case, and took away eighty-four ounces of urine by its means. In both cases the patient did quite well, although, of course, the permanent stricture was not thus relieved; but in both the individual was enabled to pass his water before the supervention of retention. In yet another case we saw the same instrument used. The patient was a child under the care of Mr. Jessop. It was suffering from hydrocephalus. The fluid had been removed by degrees. A tapping had taken place at the date of our visit, and eighteen ounces and a half of fluid had been thus withdrawn. The needle had been introduced at the anterior fontanelle, and occasioned no disturbance. The size of the head had been reduced, but the child seemed very dull and stupid. The same mode of treatment had been unsuccessfully followed in a previous case, but had failed, owing, probably, to the large quantity of fluid withdrawn at once."—*Virginia Clinical Record.*

On the First Insensibility from Ether. By John H. Packard, M.D., one of the Surgeons to the Episcopal Hospital, Philadelphia.—When the vapor of sulphuric ether is inhaled, there is, as is well known, an early stage of complete muscular relaxation, in most cases soon succeeded by an excitement, which in turn gives way to the complete unconsciousness which is so desirable for protracted surgical procedures. It is not, however, so generally known that the muscular relaxation just mentioned is attended with entire anæsthesia. Advantage may taken of this fact to perform many operations which, although intensely painful, occupy but a moment of time—such, for example, as the opening of whitlows or other abscesses. In this way much time is saved to the surgeon, while the patient is spared not only the suffering of the knife, but the vomiting, headache, and tedious return to consciousness which are so apt to follow the protracted administration of ether.

Again, when it is decided to dispense with anæsthesia, it often happens that the incisions made are not free enough—either because the patient resists, or the surgeon shrinks from giving pain; or it may be that the former cannot summon up his fortitude, and the operation is delayed until serious mischief has occurred, which might have been avoided by its earlier performance.

In large cities it is, of course, often easy to resort to the use of nitrous oxide, administered by those who make it a business; but in office practice, and in the country, the same end is attained by giving a small dose of ether. It is not even necessary to have an assistant, except in the case of children, or of very timid persons, who have not the force of will to follow out the directions given them. Generally, the whole affair may be managed easily, as follows:—

Let the patient lie on a sofa or reclining chair, and take in his own hand a folded handkerchief or towel, with about f℥ss. of ether poured over it. He should be instructed to breathe out strongly, and then to apply the inhaler at once, firmly, to his face, and to hold it there. He may be told also to raise up his other hand, and his attention repeatedly directed to keeping it up. As soon as the hands fall, the surgeon having everything previously in perfect readiness, promptly accomplishes his object, and the patient is at once allowed to "come to."

Sometimes it is better for the surgeon himself, or an assistant if one is to be had, to manage the towel or other inhaler, the patient being told to concentrate his attention upon holding up one or both hands.

To those who are already acquainted with this "dodge" and with its value in the opening of abscesses, the reduction of dislocations, the introduction of instruments into the bladder, &c. &c., no apology can be necessary for this communication. I trust that some who have not hitherto known of the plan may be induced to try it, and may find it as useful as it has been to me.—*Phil. Med. Times.*

Œsophagotomy in a Child.—M. Péan lately related to the Academy of Medicine in Paris the case of a child aged 5 years, on whom he performed œsophagotomy for the removal of a peach-kernel. The incision, five centimetres in length, was made along the anterior border of the left sterno-mastoid muscle; and the dissection was carefully carried down to the œsophagus, in which, at the point where the foreign body pressed, a small ulceration was observed. As it was difficult and even dangerous to attempt to open the tube, M. Péan determined to change the position of the kernel by manipulation, and to endeavor thus to guide it upwards. In this he succeeded; and the foreign body was ejected by the mouth with a slight attempt at vomiting. The child was fed for some days by means of an œsophageal tube, until the ulcerated opening had cicatrized. The wound healed well, and perfect recovery followed.—*Jour. de Méd. et de Chir. Pratique.*

At Omaha, recently, a red flag was placed in front of a house used for the reception of smallpox patients. A large crowd was attracted by it, who besieged the front door and wondered when "the auction was going to begin." When informed of the real state of the case they scattered "in double quick."—*Med. and Surg. Reporter.*

Medical Miscellany.

Boston Dispensary.—The following are the statistics of this institution for the six months ending March 31st. The number of new patients at the Central Office is 6889, of which 4777 were medical cases and 2112 surgical. The number of new patients in the Districts during the same time is 4501, treated with the following results:—

Discharged, cured or relieved,	4039
Sent to hospitals or removed from Dist.,	247
Died,	155
Under treatment,	183
	4624
Under treatment at last annual report,	123
	4501
Number of cases at Central Office,	6881
Total No. of cases at Central Office and in Districts,	11,382
No. of recipes during the six months,	22,995
No. of recipes since July, 1856,	680,280
No. of patients since July, 1856,	440,522

Samuel A. Green, *Supt.*

American Med. Association.—The Twenty-third Annual Session will be held in Horticultural Hall, Broad Street above Spruce, on Tuesday, May 7, 1872, at 11, A.M. Most of the railroads of the country offer transportation to and from the convention at half or two-thirds rate. All who desire to avail themselves of such rates must send to the Secretary their full names, and the names of *all* the railroads over which they must travel in coming to the session, with stamp for postage.

Wm. B. Atkinson,
1409 Pine St., Philadelphia.

Consulting Physicians of the City of Boston.—Drs. William Read, George Fabyan, M. C. Greene, John W. Foye, and Thomas Hall, Jr., were elected consulting physicians by the Board of Aldermen on the 25th ult.

Boston City Hospital.—Dr. F. E. Bundy has been appointed Admitting Physician to the Boston City Hospital.

Dr. O. W. Doe has been appointed Physician to Out-patients at the City Hospital, in place of Dr. F. I. Knight, resigned.

At a recent meeting of the Trustees of the Massachusetts General Hospital, the office of Dentist to the Institution was established, and Charles Wilson, D.M.D., was appointed to the position. The number of patients presenting themselves at this clinic has largely increased, as many as two thousand having been operated on during the last year.

New Treatment for Wens.—Dr. A. J. Perkins says, in the *Georgia Medical Companion*, that the hypodermic syringe is an effectual instrument in the cure of those encysted tumors of the scalp usually called wens, where the patient objects to the knife. It is to be charged with pure tincture of iodine and the point inserted well into the body of the tumor, and as much of the tincture forced in as the tumor will contain. In a few days the sac shrinks away from the surrounding parts, and may be easily removed.—*N. Y. Med. Record.*

Ancient Scepticism about Bleeding.—Mr. Gideon Harvey, in his *Varieties of Philosophy and Physic* (1689), says: "It is a consequence, an idiot asserts, because a person, having been blooded eight or ten times in a great distemper, doth recover his health, he owes the benefit of it to the bleedings; whereas it ought rather to be said neither the distemper nor the bleeding could kill him."—*British Medical Journal.*

A telegram to the morning papers of the 4th inst., states that cerebro-spinal meningitis is on the increase in New York. Several additional deaths from this disease were reported on the 3d.

To Correspondents.—Communications accepted:—Dysmenorrhœa caused by a Polypus of the Uterus: Pregnancy and Abortion.

Died,—In this city, 27th ult., Dr. Samuel Morrill, 72 years.—At Castletown Conyers, Ireland, 2d ult., William Ahern, M.D., late of Springfield, Mass., 30 years.

Deaths in seventeen Cities and Towns of Massachusetts for the week ending March 30, 1872.

Cities and Towns.	*No. of Deaths.*
Boston	167
Charlestown	11
Worcester	24
Lowell	24
Milford	8
Chelsea	7
Cambridge	20
Salem	10
Springfield	8
Lynn	24
Gloucester	7
Fitchburg	3
Newburyport	4
Somerville	6
Fall River	9
Haverhill	2
Holyoke	4
	338

Prevalent Diseases.	
Consumption	58
Pneumonia	52
Scarlet fever	18
Croup and Diphtheria	9
Smallpox	9
Measles	8
Erysipelas	7
Typhoid Fever	7

The deaths from smallpox were as follows:—Seven in Boston, one in Gloucester, one in Milford.

George Derby, M.D.,
Secretary of State Board of Health.

Deaths in Boston for the week ending Saturday, March 30th, 167. Males, 85; females, 82. Abscess, 1—apoplexy, 2—anæmia, 1—inflammation of the bowels, 4—disease of the bowels, 1—bronchitis, 9—inflammation of the brain, 2—congestion of the brain, 2—disease of the brain, 5—cancer, 1—canker, 1—cerebro-spinal meningitis, 2—consumption, 30—convulsions, 2—croup, 4 cyanosis, 1—debility, 5—dropsy, 1—dropsy of the brain, 4—diphtheria, 1—erysipelas, 2—scarlet fever, 9—typhoid fever, 1—disease of the heart, 5—hæmorrhage, 1—intemperance, 1—disease of the kidneys, 5—laryngitis, 1—disease of the liver, 3—congestion of the lungs, 5—inflammation of the lungs, 23—marasmus, 1—measles, 3—old age, 4—pleurisy, 2—peritonitis, 1—premature birth, 3—puerperal disease, 2—pyæmia, 1—suicide, 1—smallpox, 7—teething, 1—unknown, 6.

Under 5 years of age, 65—between 5 and 20 years, 22—between 20 and 40 years, 32—between 40 and 60 years, 22—above 60 years, 26. Born in the United States, 115—Ireland, 38—other places, 14.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

New Series.] Thursday, April 11, 1872. [Vol. IX.—No. 15.

Original Communications.

DYSMENNORRHŒA CAUSED BY A POLYPUS OF THE UTERUS. PREGNANCY AND ABORTION.

By Frank Wells, M.D., Professor of Obstetrics and Diseases of Women and Children, Cleveland Medical School.

Mrs. G., a stout, healthy woman 35 years of age and the mother of four children, began to suffer two and a half years ago from slight spasmodic pains over the pelvis at each menstrual period. This pain commenced on the first day of the epoch, and lasted until a copious discharge took place, when it almost entirely ceased, being renewed, however, at various intervals throughout the menstruation. She had no pain in the intervals of menstruation, nor was there any discharge from the vagina. The menstrual flow was somewhat increased, but by no means profuse, if the word of the patient can be credited. Her general health was very good, the only trouble being the dysmenorrhœa, which, however, was so slight that she had never consulted a physician for its relief.

This dysmenorrhœal condition lasted for seventeen months, at the end of which time it disappeared, coincident with the cessation of menstruation and the development of other early symptoms of pregnancy. At the end of the third month of pregnancy, an abortion was brought on by the patient taking, for this purpose, during a period of two weeks, six fluid ounces of a decoction of the root of the cotton plant, in divided doses, a drug which she had successfully used for a like purpose on two former occasions. At the expiration of the two weeks, uterine pains came on while the patient was standing, and a fœtus with its envelopes was expelled on to the floor. This fact was vouched for by the physician who was summoned to attend her. She lost but little blood at the time, but what little flow there was continued unceasingly. This fact obliged her, at the end of ten days, to again call in a physician, who found the vagina partially filled with clots, and a highly offensive sanguineous discharge taking place from it. She was ordered, without any further examination being made, acetate of lead internally, vaginal injections of a weak solution of carbolic acid, and, as her strength was somewhat impaired, iron internally as a tonic. Under this treatment the discharge became slightly diminished and its offensiveness removed; but as she still continued to flow unceasingly, I was summoned in consultation.

From the history of the case, I confidently expected to find a retention of some portion of the membranes, and consequently my surprise was great, on making a digital examination in order to ascertain the condition of the os, before introducing a sponge tent, to discover a firm mass of the size of a hen's egg, protruding from the os externum, completely filling up the upper portion of the vagina, and extending upwards through the os into the cervix. How much further than this it extended I was unable by my finger to detect, since the os, which was dilated to the size of a silver quarter of a dollar, encircled the mass so firmly that it was impossible to insert my finger between them.

Next introducing Sims's speculum, I perceived an ovoid, smooth and glistening body, from the outer surface of which blood was exuding, occupying the position described above. For a moment I thought it might be an inverted uterus, particularly as the history of the violent expulsion of the fœtus from the uterus, the woman standing up at the time and suddenly fainting (a circumstance which I have omitted to mention before), seemed to favor such a supposition; and, moreover, since it seemed strange to me that a polypus of this size, which was the only other condition admissible, should not have long before produced more decided symptoms, which would have led to its recognition. Again, the fact that the woman had been recently pregnant seemed to militate against the diagnosis of polypus, since it was difficult to imagine that the spermatozoa could have passed such an obstruction as this mass presented, whether it originally occupied its then present position, or had been developed in the uterine cavity and been subsequently expelled by the same uterine contractions which expelled the fœtus. The sound, however, quickly set any doubts which I may have had at rest, for on its introduction into the uterus, an operation which was accomplished with much difficulty on account of the close investment of the mass by the os, it was found to penetrate two and three quarters inches to the fundus. This circumstance, of course, removed all idea of inversion and established the diagnosis of polypus. On sweeping the sound around, the tumor was found to be attached by a pedicle of about, as far as I could judge, the size of the middle finger, to the uterine wall of the right side, a short distance above the os internum.

Without placing the patient under ether, as these tumors are seldom possessed of any amount of sensibility, I immediately proceeded to the removal of the mass. For this purpose I seized the tumor with a pair of stout forceps and forcibly dragged it further down into the vagina; then giving the forceps to an assistant to hold, and directing him to keep up a forcible traction, I slipped the chain of an ecraseur over the pedicle, as far up into the cervix as was possible, and by a few turns of the instrument succeeded in cutting through the attachment and removing the polypus. Considerable hæmorrhage followed the operation, which was controlled, however, by a pledget of cotton soaked in a solution of persulphate of iron—one part to four of water—applied to the bleeding surface. Over this a dressing of dry cotton was laid, and the woman placed in bed, which she was directed to keep for three days. On the following day the dry dressing was removed, and vaginal injections of a solution of carbolic acid—one part to forty parts of water—were ordered to be thrown up against the os twice a day. As the patient complained of considerable uterine pain, I directed warm fomentations to be applied over the region of the uterus, and ordered her a rectal suppository composed of ext. hyoscyami, grs. iij.; ext. belladonnæ, gr. ss.; cacoa butter, q. s. M.

This was effectual in relieving all distress, and on the third day, though contrary to orders, she got up from bed and performed some light household duties, the persulphate of iron dressing still being retained. Owing to my neglect to forewarn her that this dressing would be expelled with some uterine contractions, an amusing occurence, though to her mind a distressing one, occurred on the evening of the third day. Experiencing slight uterine pains, which were followed by the expulsion of the cotton pledget, she became seriously alarmed, and, hastily summoning her physician, proclaimed to him that "another child had come away," and it was only after great difficulty that he succeeded in convincing her of her ludicrous mistake.

Without complications, and without further treatment, excepting the administration of tonics, the patient made a speedy recovery, and has since menstruated without the slightest discomfort.

I have reported this case, neither because it was of any magnitude nor because the operation was attended with any great amount of difficulty, but because it is interesting to know how sometimes quite serious morbid conditions may be masked by the paucity and lightness of their symptoms; and also to show what obstacles to their ingress into the uterus, the spermatozoa will overcome in order to reach the ovum. I am well aware that uterine polypi sometimes occur with only symptoms of dysmenorrhœa to indicate their presence, but why in this particular instance the dysmenorrhœal symptoms should have been so slight, it is difficult to comprehend, since the polypus, which undoubtedly was originally developed in the uterine cavity, and attached by a pedicle sufficiently long to allow of its expulsion into the vagina at the time of the abortion, must have formed a considerable obstruction to the passage of the menstrual discharge.

In connection with this case it may not be inappropriate to quote another, which was related a few years since by Prof. Braun, of Vienna, in one of his lectures, in order to show through how small an aperture the spermatozoa will find their way into the uterus. The case, as far as I recollect it at this late day, was as follows: Some years previous, a woman was brought into the lying-in wards by her husband, with the statement that she was in the sixth month of her pregnancy, a condition which neither of them could understand, since the man had never been able to introduce his penis into the vagina. On examination, it was discovered that the vagina was represented by a narrow canal, not as large, to quote Dr. Braun's exact words, as the penis of a gander, which of course prevented complete sexual intercourse; and yet there were unmistakable proofs that the woman was really pregnant. Under the circumstances, the only thing to be done was, in order to avoid Cæsarean section, to make a new vagina, or rather to enlarge the representative of the one already existing. This was done by incisions carried to the depth of half an inch, at which point the narrow canal was found to terminate in a vagina, perfectly normal in all particulars. The operation was successful in creating a good vagina throughout its entire length, through which, at full term, a small, but fully developed, living child was delivered without assistance. In two years after this event, the woman, who had again become pregnant, was delivered of a living child without any complication whatsoever.

PROLONGED USE OF HYPODERMIC INJECTIONS OF MORPHIA.

By Robert M. Otis, M.D., Cambridge.

Mrs. H., 29 years old, was taken, July, 1867, with a severe, dull pain in the abdomen, which was somewhat relieved temporarily by from three to six discharges, daily, of nearly a cupful of matter, apparently pus, from the rectum. After these discharges had continued six weeks, laudanum injections were ordered, and after two injections the discharge and pain ceased.

In the third week of August, sharp pains commenced about the right hip-joint, and extended along the thigh, interfering with walking. Soon the leg commenced to draw up, and by the last of August the foot could not be put to the floor. The pain about the hip-joint continued four months, with feverishness, headache and vomiting. Then an abscess began to discharge at the right groin, and continued to discharge two weeks. After this the patient improved, had a good appetite, could sit up, and touch the floor with her toes. A month later, pains came on again about the right hip-joint, much more severe in their character than before. No sleep was obtained for ten days. At this time, Feb., 1868, daily hypodermic injections of one-eighth of a grain of sulph. morphiæ were begun; soon were increased to three or four daily, and in fifteen or twenty days the amount of sulph. morphiæ injected daily was increased to sixteen grains. When the pains came on the second time, the leg began to draw up and later to roll out, and soon reached a position at nearly a right angle with the body, where it is now firmly anchylosed. In February, a second abscess discharged for a short time. From February, 1868, till now (Feb. 1872), the hypodermic injections have been continued daily without a single exception, and save the first few days, the amount injected has varied from two and a half to sixteen grains daily. The morphine was first injected into the arms, then for a time into the left leg, but for the greater part of the four years into the right leg. Every point injected becomes a suppurating ulcer; at first very small, it increases in size and sometimes attains a diameter of an inch. The upper surface of the right leg from groin to ankle is entirely covered with scabs, scars and running sores. The upper surface of the left leg from groin to knee has not a piece of natural skin the size of a pin's head.

At present, two and one-half grains are injected morning and night. Occasionally, as at the menstrual periods, and times of excitement, an extra injection is made at noon. The solution, twenty grains to an ounce of water, is injected very slowly, each injection requiring a half hour. When the morphine is introduced quickly, the patient says everything stops; she feels greatly distressed; knows what is going on about her; can speak, but does not wish to; the pulse cannot be felt at the wrist; the whole surface of the body becomes intensely congested; then the lips tingle, there is a terrible roaring in the head, great oppression and violent thumping at the cardiac region. Slowly, the skin regains its natural color, and the patient is herself again.

An English writer, Dr. Wilson, says, "the most deadly faints I have ever seen were undoubtedly caused by the too rapid absorption of the narcotic, either from hurried injection, or from the accidental injury of the lymphatics, which became inflamed, and resembled cords on the skin." He mentions a case where the first few drops rapidly introduced caused nausea, which soon passed off, and then the larger residuum could be injected rapidly and safely, whereas an increase during the nausea would produce most threatening symptoms of prostration. Mrs. H. has been nauseated only once by the injection.

Anstie says, "the prolonged use of hypodermic morphia in large doses produces general enfeeblement of nervous power of all kinds; the intellect, and even more strikingly the moral energy steadily declines, and a notable degree of hypersensitiveness to trivial sources of irritation becomes more apparent from day to day.

There are changes of nutrition in the tissues; at least, I am under a strong impression that a particular kind of muscular atrophy which especially attacks the facial muscles is one of the results of large and long doses of hypodermic morphia." As long as the ulcers caused by the injections discharge pus, Mrs. H. has a good appetite, is lively, bright and amiable. A person seeing her and not knowing the history of the case, would never suspect that the patient was out of health, so cheerful and lively is she at all times. The clearness of the complexion is especially noteworthy. When the ulcers cease to discharge, the patient becomes feverish, and either vomits, coughs, or has a diarrhœa, and discharges from the stomach, bowels or lungs, matter having the same appearance as that coming from the leg. Generally, the discharge is from the stomach. The leg usually stops discharging matter every three or four months. Since last April (1871), the leg has not ceased discharging, and since the same time the patient has menstruated regularly. The discharges from the stomach, bowels or lungs have a marked connection with the amount of morphine injected, the patient requiring much less morphine after them. In a week the amount of morphine injected is reduced from sixteen grains to four or five grains daily. The amount is usually increased gradually by the necessities of the patient up to twelve, fourteen or sixteen grains, and reduced as above. The bowels never move without an enema. When the injection is delayed for a half hour beyond its usual time, the patient has severe pain and soon becomes rigid. From June 14, 1870, to December 31, 1871, eighteen and one half months, there have been injected six ounces of sulphate of morphia. This is a less amount than for any equal period of time since the injections were begun. For a long time, eight grains were injected daily, and there was another long period, during which twelve grains were injected daily, and still a third, during which sixteen grains were injected daily. It seems that eight grains would be a low average of the amount injected daily. If we take eight grains for the average daily injection, this lady has used, subcutaneously, in the last four years, at least twenty-four ounces of sulphate of morphia. At this time, after consuming such an enormous quantity, she is in better health than at any other time for the last four years. She has no desire for opium, would gladly leave off its use, and has made repeated attempts to do so, but without success. Mrs. H. shows none of the injurious effects of opium, as laid down by writers. The constipation may be ascribed to her confinement to a warm room.

Selected Papers.

THE DIAGNOSIS OF THE FIRST STAGE OF CARCINOMA COLLI UTERI, WITH REMARKS UPON ITS ANATOMY AND TREATMENT.

By Prof. Otto Spiegelberg, of Breslau. Translated for the Journal by Leonard Wheeler, M.D., Student in Breslau.

The recognition of the local commencement of cancer of the cervix uteri is, as is well known attended with difficulty, is indeed, so far as absolute certainty is concerned, regarded as impossible, especially in those cases in which the disease does not in the beginning display itself in the form of superficial growths, but rather as a circumscribed infiltration, the mucous membranes remaining intact. "Of all forms of cancer of the cervix uteri, the only ones which offer any difficulty in diagnosis are those in which the mucous membrane remains intact, or perhaps better said, only that stage of so-called cancer offers any difficulty in which disintegration has not yet appeared. In these cases, however, the difficulties are, for the most part, so considerable that a definite diagnosis can but seldom be made. Where one or more hard nodules can be felt lying under the smooth mucous covering, the diagnosis is comparatively simple and easy; but in those cases, on the contrary, in which the vaginal portion feels enlarged, smooth, hard and thickly swelled, it is impossible to distinguish cancer from simple benignant hypertrophy or from chronic metritis. Let the differential diagnosis tables as laid down in various text-books be ever so clear and seductive, the fact still remains that in such cases in practice one is always doubtful and uncertain, even if he does leave the whole matter to the untrustworthy decision of the so-called *tactus eruditus*. It is of the utmost importance as regards the treatment, that we should recognize just these cases, in the large majority of which, so far as we can judge, a part of the vaginal portion remains healthy."* So Gusserow represents the present state of our knowledge in his otherwise excellent "Clinical Lecture on

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* Volkmann's Sammlung Clin. Vorträge, No. 18.

Carcinoma Uteri." And it is this statement, with the closing reference to its important significance, which induces me to publish the following article, the substance of which I had intended to reserve for a larger work.

Extensive observation and a consideration of the anatomy of the disease have, I believe, supplied me safe signs for a differential diagnosis, in the peculiar hardness of the cancerous infiltration, in the relation of the mucous membrane to the hard mass underneath, and, finally, in the effect of dilatation by sponge tents. Since devoting my attention particularly to these points in deciding between a commencing carcinoma with unbroken mucous membrane and simple diffused or circumscribed hyperplasia, benignant infiltration, they have never failed me, though the decision was, to be sure, in consideration of the rarity of the former disease, almost always in favor of the latter.

The hardness of the cancerous deposit in comparison with the consistency of a simple induration, be it never so dense and cicatricial like, is well known; still the judgment in such a case is altogether subjective, and the bounds between the two diseases are always hard to determine. I will therefore not place this characteristic in the foreground, though for me it has always been very reliable.

The other two symptoms, on the contrary, are unequivocal, and briefly expressed are as follows:—first, the mucous membrane in a cancerous growth is firmly connected with the underlying induration and immovable over it, which is not the case in mere hyperplastic thickening and induration; and, second, while the latter, under the pressure of compressed sponge in the cervical canal, becomes regularly (even though at times inconsiderably) looser, softer and thinner, the cancerous infiltration remains unalterably hard and rigid, and cannot be stretched.

What clinical experience has thus taught is clearly explained by a consideration of the microscopic anatomy of the disease; and this compels me to make a short digression upon the development of cancer, which is the more in place as all accounts of the origin of the disease labor under the objection of indecision and incompleteness, referring, for the most part, to the manner in which it developes itself externally and other matters of only secondary importance; thus Förster's distinction of papillary and parenchymatous epithelial cancer[*]; the division by Blau into cancroid, as villous papillary tumor, and carcinoma as uniform infiltration of the deeper layers of the cervix[†]; and Gusserow's omission of any decided opinion upon the subject.[‡]

The results of Waldeyer's investigations, which my colleague has kindly permitted me here to anticipate, help us to a clear and satisfactory explanation of the observed phenomena. He shows that cancer of the cervix uteri is developed from the rete Malpighi of the mucous membrane, or, in extremely rare cases, from the glands of the cervical canal. The latter form of development gives rise to the alveolar or colloid carcinoma, and is, as remarked, so extremely rare that Waldeyer has had but one opportunity of examining a case of the kind. I also have seen but one. He can, therefore, accept the form originating from the rete Malpighi as the type of carcinoma uteri. As a rule, the disease is developed from the interpapillary depressions of the epithelium, and accordingly originates oftenest on or close by the lips of the os, but may, of course, appear in other places free from papillæ.

According as the growth of the epithelium into the tissues below is or is not attended by a simultaneous growth of the papillæ, two forms of cancer may be distinguished—the papillary villous (commonly called cauliflower excrescence) and the simple infiltrated form. In every case, however, the irregular epithelial growth remains the essential part of the disease.

The formation of vascular villi by the papillæ of the portio vaginalis is of secondary importance. It may precede, appear simultaneously or be a later accompaniment of the penetrating epithelial growth. In the first case the carcinomatous character of the disease begins with the commencement of the irregular abnormal (atypisch) epithelial growth; till then the villous excrescence on the vaginal portion must be considered as a simple papillary tumor, fibrous papilloma, as, in fact, such tumors of the part are regarded, and in most cases, without further complication, successfully treated.

The cases in which both epithelial growth and papillary hypertrophy appear simultaneously may perhaps be the most frequent, and accordingly all papillary vegetations of the cervix must be held in suspicion, especially in consideration of the possible subsequent cancerous degeneration of a previously simple papillary hypertrophy.

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[*] Handb. der. Pathol. Anatomie, ii. Bd., Aufl. 2.

[†] Eiringer's Pathologische Anatomisches über der Aebärmutterkrebs.

[‡] Loc. cit.

Carcinoma of the third description, *i. e.* that which comes to a villous growth only very late or not at all, shows itself merely in the form of circumscribed or more diffuse infiltration of the labia of the os or of the whole cervix uteri. In this form, the course of development is in brief the following: At a certain more or less well-defined point of the vaginal portion, the deeper layers of epithelium, corresponding to the rete Malpighi of the outer skin, begin to penetrate into the underlying stratum of connective tissue, the process being attended by a copious vascularization of the latter. The inward growth must naturally emanate from the deepest lying epithelial cells, viz., from the interpapillary depressions. The penetrating processes of growing epithelium press deeper and deeper inwards, thrust apart the bands of connective tissue and bundles of smooth muscular fibres, and so form an irregularly branched collection of cells, which appear as if infiltrated or, perhaps better, injected into the substance of the cervix. The last comparison is better adapted, since we in fact meet with abundant abnormal epithelial growths in the lymphatic spaces and vessels.

Since the development of cancer always begins with the abnormally rapid growth of the deeper layers of epithelium, it is very possible that the disease may be far advanced, even though the superficial epithelial layers remain entirely unchanged. Hence the frequent mention of the primary deep development of uterine cancer with an outwardly healthy mucous surface. It is a mistake, however, to fancy the epithelium entirely unconcerned in the process. In many cases, to be sure, and even at an early stage of the disease, the outer layers of epithelium are thrown off, and the beginning cancer is presented in the form of an erosion, as well as an epithelial infiltration of the submucous layers of connective tissue.

Farther, it is to be remarked that in the uterus, just as on the skin, the cancerous development may start from a small, circumscribed collection of epithelial cells, and penetrate hence inwards into the tissue, or extend outwards towards the surface.

In the first case, the disease must appear as a small, circumscribed induration (Knoten), lying deep down in the substance of the uterus; in the second, as the so-called corroding ulcer, ulcus phagedænicum or corrodens of authors.

If the disease has advanced to marked papillary growths or ulcerous disintegration, the diagnosis is comparatively easy, but even in the cases in which there is externally no disease, the immobility of the mucous membrane must be recognized as a condition in perfect conformity with the established facts in regard to the development of carcinoma.

Since the carcinomatous indurations and infiltrations owe their origin directly to the most important constituent of the mucous membrane, namely, its epithelium, and are thus intimately connected with its superficial layers, any motion of the latter upon the new growth is prevented.

The different effect of compressed sponge upon carcinoma and homoplastic induration will be understood if we consider that in the first case the diseased tissues, as if injected with wax, are filled with an inflexible mass, which deprives them of all elasticity and renders them incapable either of being stretched without rupture by the mechanical pressure of the swelling sponge, or of being softened by the fluid fluxion and exudation which the sponge indirectly incites in other conditions of structure.

In fact, these two effects of compressed sponge correspond exactly with the two conditions accompanying labor, viz., the pressure of the advancing fœtus and the attending hyperæmia; and it was, in fact, this last comparison which led me to the idea of using the sponge in the way indicated.

My first case was that of a patient whose irregularly indurated, enlarged, fissured cervix uteri had frequently been held for concerous and its extirpation recommended. The absence of carcinomatous hardness, however, and a mucous membrane entirely normal, and easily movable, except at the fissured points, aroused in my mind a doubt of the correctness of the diagnosis; and every idea of carcinoma disappeared when, the next day, after the introduction of a compressed sponge, I found the indurated and thickened portion much softer and thinner. The later history of the case confirmed the correctness of my diagnosis.

I have very often since argued in this way the absence of cancerous disease, and subsequently proved the justice of my conclusions by microscopic examination after removal of the inflamed and hyperplastic vaginal portion (an operation which is attended with immediate benefit, and is in itself without danger). If, as is true, the opposite cannot be so often proved, the difficulty lies only in the infrequency with which cases of primary parenchymatous cancerous disease without papillary hypertrophy of the mucous membrane are observed in the beginning of their course. I have met with but two cases of the sort in all, but in both, the signs in question proved their reliableness as criteria for the differential diagnosis.

It may be objected to the use of the compressed sponge as an aid in diagnosis, that by its means the degeneration of the neoplasm, the exulceration of the cancer, will be hastened. That I allow; but, still, there is no harm done, for the extirpation must follow immediately if the disease is found to be carcinoma. It is only when done very early that the operation *can* be attended with any success; and whether a perfect cure ever results, I still very much doubt. For, even in the two above-mentioned cases, in which I recognized the disease in the first stage and operated, so far as the finger could judge, in healthy tissue, the operation was useless. The disease returned almost immediately.

The result was the same in three other cases with ulcerations and superficial growths, in which I applied the galvanocaustic wire upon a ring of apparently yet healthy tissue close up to the vaginal attachment, where, to be sure, the burned cut surface did not allow microscopical proof of transition to healthy tissue. In the first case, the wound healed well and showed no change for nearly a year, when suddenly a papillary cancerous growth developed itself with surprising rapidity from the cicatrix. In the second, new papilloma showed itself immediately upon the falling off of the slough. In the third case, after long suppuration and repeated sloughing, a tunnel-shaped cicatrix was formed in the base of the vagina, with which the cervix uteri was closely connected, and I considered the case cured. Upon examination, a year and a half after the operation, I found the cicatrix unchanged; but at present, three months later, there is developed upon the site of the old disease a superficial cancerous induration larger than a pea.

Nevertheless, I must still allow the possibility of a radical cure by early amputation. It is confirmed by the reports of perfectly reliable authors, although there are among those reported many cases of only apparent cure. Certain it is that cures are very rare, and the reason for it is probably to be found in the rapidity with which the lymphatic vessels in the neighborhood of cancer, in contrast to sarcoma, are invaded by the disease.

In the very great majority, however, of cases of carcinoma of the cervix, amputation is inadmissible. On this point I differ completely from Gusserow's too general advice* for operation.

The loss of blood upon the application of instruments and the removal of the diseased portion, is so considerable that it injures the patient more than the temporary retardation of the growth and ulceration can benefit her.

It has always seemed to me that the disease made more rapid advance after the bloody operation, and that the degeneration and disintegration became only more rapid.

If the disease is locally far advanced, the removal of the diseased portion must be accomplished with scalpel and scissors, if there is to be any prospect of a respite of even a few months. For it is with these instruments alone that it is possible to extirpate a pyramidal-shaped piece† whose apex shall extend above the base of the vagina, which level in a case anyways far advanced is always overstepped in the vicinity of the cervical canal. Loop and chain cannot be operated above this level, must cut, therefore, through the midst of the disease, and the following development from the cut surface is all the more luxuriant.

For a while, I deceived myself with the idea that, in cases where the vaginal walls were not yet attacked, it would be possible to remove a portion of the corpus uteri by means of a wedge-shaped incision, but the difficulty of the undertaking became evident upon the first attempt at its execution. The enormous hæmorrhage, the impossibility, in the gushing blood, of controlling the instrument by the eye; the necessity of directing scalpel and scissors in the narrow space with the fingers alone; the danger of injury to the neighboring parts (bladder and especially peritoneum); the repeated tearing out of the hooks fixed in the brittle mass; then, too, the threatening danger of serous inflammation which would attend the tamponning or cauterization of the bleeding wound—all caused me to regard the completion of the operation, without imminent danger to the life of the patient, as impossible.

My advice, therefore, is: very early operation, or, where this is not possible, mere treatment of symptoms.

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* Loc. Cit.

† Hegar-Verhand. der Gynäkol. Section der Naturforscher-Versammlung zu Innsbruck. Mon. für Geburtsk 34 Band, S. 394–95.

Foreign Correspondence.

AN ACCOUNT OF A NEW SYSTEM FOR DRESSING WOUNDS AND AMPUTATIONS, INTRODUCED BY M. ALPHONSE GUERIN, SURGEON AT THE HOTEL DIEU.

Messrs. Editors,—Under the impression that it may still be new to many of your readers, I venture to send you a short account of a system for dressing wounds and amputations, introduced not long since by M. Alphonse Guérin, Surgeon at the Hotel Dieu, and which is now being quite generally tried in the hospitals here. The dressing is cotton wool, and its application is based upon the now generally well-known property which cotton wool possesses as a filter of atmospheric germs. Your readers will remember the use made of it in Pasteur's famous experiments in regard to spontaneous generation, and Prof. Tyndall's more recent experiments confirming the same properties. The latter has even proposed that it should be adopted as a respirator to render innocuous the poisoned air of sick rooms.

M. Guérin made his first experiments during the first siege of Paris, at the Military Hospital Saint Martin, and continued them during the second siege with success. He has now the service at the Hotel Dieu, which, from the well-known unhealthiness of its wards, gives him an excellent opportunity to put his system to proof. According to M. Guérin, the dressing should fulfil four objects, viz.: it should act as a filter of the air, excluding organic germs, and consequently preventing putrefaction; it should afford an elastic compression to the limb and an equable temperature, and should allow complete repose to the parts during the process of restoration.

When well applied the dressing does fulfil these demands, and in doing so it seems to be the best, as well as the simplest system of treatment of wounds and amputations with which we are acquainted. To attain these results, M. Guérin's formula is, *"il faut mettre trop d'ouate, et serrer trop fort,"* one should put too much cotton wool, and bandage too tightly. In other words, failure is generally the result of putting too little cotton wool, and bandaging too loosely. His measure is that the limb, when bandaged, should have about three times its original size. I have heard of five pounds of cotton wool being applied after an amputation of the leg, but that is more than is usually considered necessary. In a case which I followed, the cotton wool applied after an amputation of the leg, and which reached to the groin, weighed only 785 grammes, about $1\frac{3}{4}$ pounds. In this case, the details of which I will give below, the condition of the wound and the character of the discharges upon the 24th day, when the dressing was removed for the first time, were most satisfactory.

In those cases which I have seen, the absence of pain, the entire comfort and good general condition of the patient were remarkable. The bandaging is a point of prime importance. In order to put the cotton in a position to act as a filter, and in order to give the proper compression to the parts, several layers of bandages should be firmly and evenly applied. If the bandage is well adjusted, one can tap with considerable force upon the outside of the dressing without causing any unpleasant sensation to the wound; and a patient can often be up and about with a wound which would otherwise necessitate remaining in bed. The gain, both to the patient and to the attendants, from the fact that a wound or amputation which formerly would have been dressed twice a day now requires but once in three, four, or even six weeks, will readily be perceived. I say even six weeks, for the tendency is to leave the first dressing as long as possible, and some cases are reported in M. Guérin's service where it has been allowed to remain from thirty-five to forty-five days. Of course, the bandages should be carefully watched, and readjusted if at all loose. Should the discharge appear to any extent at the surface of the dressing, the latter should, as a rule, be changed. One of the most striking things about the dressing is the very small quantity of discharge which collects, even in the course of several weeks. In the case mentioned as occurring in M. Guyon's service, there had not been more than ℥iij. of pus, including that which had soaked into the dressing, upon its removal after three weeks. The pus generally has a stale but not a putrid smell, and in several cases examined under the microscope gave no evidence of organic germs.

M. Guérin was kind enough to open one of his dressings before me, and pointed to the fact that the inner surface of the cotton wool becomes matted by the perspiration, and so closely adherent to the skin that it is with difficulty removed. In those cases where the dressing has been most successful, he has always found this condition of things. To facilitate it he sometimes applies a solution of gum arabic. M. Guérin takes the precaution never to apply the dressing in the wards, and to use cotton wool freshly opened. The wound is previously bathed with a solution of camphorated alcohol and water, or with some other antiseptic, and in the case of amputations, especial care is given to tying *all* the vessels. After the application of the bandage, one must, of course, give to the patient all the attention which one usually devotes to the wound when exposed to view, and any change in pulse, temperature, or appetite, should be carefully noted. This being done, one can be quite sure of the condition of the wound.

Whatever merit there is in the *application* of this principle is due to M. Guérin. Mr. Lister has made use of cotton wool, but not in the same way, or to the same extent, and has apparently discarded it altogether, as will be seen by referring to a note upon page 619 of vol. v. of the last edition of "Holmes's System of Surgery." His "antiseptic gauge" may be even more antiseptic than the cotton wool; but it cannot have the other advantages claimed by M. Guérin for the cotton wool of affording elastic compression, equable temperature, and a thorough protection to the part, combined with simplicity of application and comparative cheapness. The apparatus of M. Jules Guérin, described in the *Révue des Cours Scientifiques* of Dec. 14th, 1867, also attains an antiseptic result, but lacks the other advantages offered by this system of M. Alphonse Guérin. I would refer your readers to an article, the first part of which has appeared in the *Archives Générales de Médecine* for Dec., 1871, written by M. Hervey, a former Interne at the Hôpital de Saint Louis, under M. Guérin.

I append an abstract of a case occurring in the service of Dr. Felix Guyon, at the Hôpital Necker, the report of which was kindly furnished me by Mr. T. B. Curtis, Interne. It may be of interest as impartial testimony.

Patient, a carter, æt. 36, strong, healthy man, brought to the hospital Jan. 27th, with a compound, comminuted fracture of tarsus and leg; comminution of the bone, and laceration of soft parts extensive.

Amputation circular at the junction of the third and lower quarters of the leg, with vertical incision upon the internal aspect of the tibia, the latter united by sutures of silver wire. Guérin's bandage applied, about $1\frac{3}{4}$ pounds of cotton wool tightly bandaged as far as the groin; no cotton placed between the flaps. (This, I would add, is contrary to M. Guerin's practice; he always fills the space between the flaps with a cone of cotton.) From the day of the operation, the patient's general condition was excellent; his appetite was good, he slept well, and there was no pain in the stump, which he brandished with impunity. During the first two days, a slight sanguinolent discharge made its appearance at the top of the bandage, near the buttock, but ceased, the bandage being tightened. A very slight discharge had found its way to the surface of the dressing during the last week that it remained in place. The dressing removed February 20th. Condition upon removal:—The cotton wool found dry, but giving out, as removed, a tolerably strong, sour, disagreeable smell, which did not, however, increase as the stump was approached. Upon arriving at the last layers, the cotton was found matted with pus, partly liquid, partly dry, forming a sort of brownish felt, dry upon the outside, moist near the wound, covering like a cap the end of the stump. This cap, about as large as the hand, was separated from the wound at its centre by a brownish pus which bathed the wound, the quantity of which might be reckoned at ℥i. Around the wound, this cap was closely adherent to the skin. The pus, brownish like *chocolat à la crême*, had a pretty strong but not putrid smell. Under the microscope, one found nothing in the discharge except pus cells and an infinite number of fatty granulations; no signs of organic germs. Objective No. 5 of Nachet.

Condition of the wound:—Rosy, neither pale nor red, just sufficient granulations to fill the cone. The extremity of the stump was rounded; the cicatrix will necessarily be central, but the bony extremities were sufficiently covered; no retraction had taken place. The small, vertical incision seemed to have united by first intention. The ligatures, still holding, were left in place. A second dressing was applied similar to the one removed. In this case, the dressings were applied in the ward. The diagram of the pulse and temperature shows that the former never rose above 90 and averaged 75; the maximum of the latter was $38\frac{1}{2}$, Centigrade, and the average $37\frac{6}{8}$. There were, at the same time, in the same ward, two cases of compound, comminuted fracture of the phalanges, the joints being opened. In both cases, the hand was supported by a zinc splint; the one case was dressed with cotton, the other without. The condition of the former has been incomparably better during the treatment.

I should mention the fact that the precess of granulation is not always so rapid beneath cotton wool as one is at first led to expect, and it is better not to prolong this treatment beyond a certain point. The immense advantage of the system in time of war is apparent, enabling transportation in many cases where it would otherwise be impossible, and thus, by preventing overcrowding, acting both indirectly as well as directly as an antiseptic.

GEORGE B. SHATTUCK.

Paris, March 5, 1872.

Reports of Medical Societies.

BOSTON SOCIETY FOR MEDICAL IMPROVEMENT.

F. B. GREENOUGH, M.D., SECRETARY.

DEC. 26th, 1871.—*Rupture of Intestine from external Violence.* Dr. JOHN HOMANS reported the case.

About a week ago he had been called to see a man who had been struck in the abdomen by a piece of board about a yard long, which he had been holding to a circular saw, and which in some way had got caught. When seen, the patient was in great agony, continually changing his position from the bed to the floor and back again, apparently being in less pain when on his elbows and knees. About one grain of morphia was injected subcutaneously, and about two-thirds of a grain more during the night. He was seen every day, and took about one and a half grain of morphia per diem. His urine was albuminous. He gradually sank, and died on Saturday night, the injury having taken place on the previous Tuesday.

There was no external sign of injury. At the autopsy, some gas was found in the peritoneal cavity, and about ℥xii. of fluid, opaque, yellowish fæcal material. The peritoneal surface of the intestine was adherent, for the most part of a deep red color, and covered with thick opaque lymph. Where the convolutions adhered so as to form a sort of cup, and had retained the extravasated intestinal fluids, the peritoneum was sloughy. In the ileum, about three feet from the cœcum, was a rent through the bowel, parallel with the long axis, about half an inch in length, and surrounded by ecchymosis; ten inches higher up, another rent, nearly parallel with the long axis, and one and one fourth inch long. About four feet higher, in the jejunum, were two roundish ruptures, surrounded by sloughy lymph. The mucous membrane of the ileum, at a point about a foot from the ileo-cœcal valve, was of a deep purple for an extent of six inches.

Dr. J. B. S. JACKSON said it was remarkable that the patient should have lived so many days, as it was usual for cases, even where there was only a single rupture, to die within twenty-four hours. He did not know, however, that the fact of there being several ruptures would make the case any graver. The non-existence of any external evidence of injury was also an interesting point. In Mayo's Pathology this is stated to be the usual case, and Dr. Jackson's own experience would confirm that statement, as he has in only two cases seen any external evidence of violence. This does not seem to be generally known, as in Circular No. 3 of the publications of the War Department, in speaking of a case of fracture of the liver, Dr. Otis mentions the fact that no fracture of the ribs was found as something extraordinary.

Dr. FIFIELD quoted some experiments, from the *Dublin Quarterly Review*, with regard to wounds of the intestines. The experiments were performed on dogs, and from them the writer had concluded that when the intestinal wound was longitudinal there was an eversion of the mucous membrane which prevented an escape of the contents of the intestine into the peritoneal cavity, which is not, however, found when the rent is transverse or oblique; hence he concludes that where the wound is less than an inch in length and longitudinal, it should be left without sutures.

Dr. JACKSON could not conceive how, whatever the direction of the rent might be, the contents of the intestine could be retained, as we see in typhoid fever that a perforation even the size of a pin-hole is followed by instant peritonitis. Moreover, he should think that even if this eversion did take place, it would prevent the possibility of the adhesion of the edges of the wound.

DEC. 26*th.*—*Embolism of Left Middle Cerebral Artery.* Dr. LYMAN reported the case.

P. C., painter, æt. 46, entered City Hospital Nov. 18th. Four years previously had rheumatic fever, accompanied or followed by "palpitations of heart," which, however, gave him no serious trouble until last June (six months ago), since which time they have gradually increased in intensity, until, for the past four nights, the dyspnœa has been so urgent as to prevent his lying down. Feet and legs now œdematous; skin natural; tongue clean; bowels regular, micturition free. Pulse 106, very irregular. Heart's action labored—area of dullness neither enlarged nor displaced. Mitral and aortic murmurs very distinct. Some subcrepitant râles at base of left lung; no cough. Was ordered a diuretic mixture of digitalis squills and hyoscyamus, and a cathartic of compound Jalap powder.

21st.—Anasarca nearly gone; breathing much relieved, but still some dyspnœa in recumbent position.

27th.—Greatly improved; action of heart less labored and irregular, and gets comfortable sleep at night from ten grains of chloral hydrate.

29th.—Complained of distress in hypogastrium, for which he had compound jalap powder, followed by two free dejections and entire relief from pain.

30th.—Complains of pain inside of thighs. Subcutaneous injection of morphine (one-eighth of a grain) gave entire relief, followed by comfortable night's sleep.

Dec. 4th.—The record reports steady improvement. Complains only of debility.

5th.—Not so well. Pulse only 44, intermitting every fourth beat. Digitalis omitted.

7th.—Some fever and pain in epigastrium for past forty-eight hours.

8th.—Begins again to suffer from dyspnœa, but complains of no pain. Tongue coated and dry. Two or three light-colored dejections daily.

9th.—Heart's action slow, labored and intermittent. Aortal direct and mitral regurgitant murmurs much intensified. At 7½, P.M., the house physician was called, and found him in great distress. Only partially conscious, unable to speak or swallow; some low muttering delirium; whole right side paralyzed; face pale, feet cold, pupils somewhat dilated.

10th.—At morning visit, with the students, found him in much the condition above described, partially conscious when spoken to, but unable to speak, except that he once said "what," when called by name. Occasional twitchings of left side of face and body. Right leg cold and pulseless below the knee, and two large purpuric spots, three inches by two, one below inner malleolus and the other about the middle of the inner aspect of the leg, with the epidermis slightly raised by fluid. Embolus of the middle cerebral artery was diagnosticated. The patient gradually failed, and died at 1 o'clock the next morning.

Autopsy by Dr. Webber (ten hours after death).—A little more than one quart of serum in each pleural cavity, with considerable masses of coagula. Right lung adherent by bands to lower part of wall of chest. Both lungs contained old cicatrices at apices.

About ℥i. of serum in pericardium. The surface of pericardium about right auricle, near its junction with ventricle, on the auricular appendix of left auricle and following the vessel, near the division line between the two ventricles, were deposits of lymph; also on the corresponding surface of the mediastinal pericardium.

Heart hypertrophied; right auricle fully distended by decolorized clot, evidently old; right ventricle also containing coagula; left side also contained considerable coagula. Mitral valve rather small for size of heart, admitting only two fingers, and lined with very minute vegetations. Aortic valves thickened, and a few vegetations seen. Walls of ventricles thickened and rather friable.

Liver rather large and mottled. Left kidney had one or two slight spots of hæmorrhagic stasis, probably from very minute embolisms.

Brain.—Rather more serum than usual between the membranes. Puncta vasculosa much more prominent than common. The surface of both cerebra ovalia magna congested, the left more than the right. The left middle cerebral artery plugged after giving off two or three branches. No softening; no yellow discoloration; nothing but congestion of the corresponding hemisphere.

The paralysis and loss of speech and consciousness supervening so suddenly on the 9th, was doubtless due to the detachment of a fibrinous vegetation from left side of heart, which was carried on until its lodgment in the middle cerebral artery, where it was found at the autopsy.

The dilatation of pupils and muscular contractions observed after the paralysis are noticeable as opposed to the train of symptoms quoted from Erlenmeyer by Dr. Hammond. Dr. H. also gives thirty-seven cases from his own practice, all but one associated with organic diseases of the heart, of which in thirty-one the embolus was on the left side. He also quotes forty-two collected by Meissner, of which thirty-four were on the left side.

He said he thought these cases of embolism very interesting, and more common than usually supposed.

Dr. **Ellis** spoke of a case which he had thought to be embolism of one of the cerebral arteries. An old lady was suddenly seized with hemiplegia, from which she recovered in about twenty-four hours, some difficulty in speaking however remaining up to the present time. Her heart was much enlarged, but there was no murmur.

Dr. Jackson said that he had no doubt of the fact that embolism of the cerebral arteries might produce symptoms such as were found in Dr. Lyman's case. He had however been sceptical in this case as to the connection between the brain trouble and the heart, as he had seen nothing on the valves that could be, or any signs of anything having been, detached. Perhaps the clot found in the cavity of the heart might account for the embolus. It is certainly strange that an embolus of so small an artery, in an organ as rich in bloodvessels as the brain is, should produce such results.

Dr. Ellis said that the cerebral arteries do not anastomose, so that when one of them is plugged up, the entire supply of blood is cut off from parts to which it is distributed.

Dr. Lyman said that it was not necessary that there should be valvular disease to produce an embolus. An atheromatous condition of the aorta might do so. Dr. Richardson states that an acute inflammation of the serous membranes, the loss of much blood, or a long-existing suppurative disease, may act as predisposing causes to the formation of emboli. The differential diagnosis between an attack of apoplexy and an embolism of the cerebral arteries is given in detail by some authors; the characteristic of the latter being stated to be the suddenness of the attack, loss of speech without loss of consciousness, twitching of the face, &c.

Dr. Ellis said that on the other hand the symptoms might be just the same. When such a case is seen, if there is known disease of the heart, one is justified in thinking that it probably is a case of embolism. He thought that the distinction between the symptoms of the two diseases was more strongly insisted upon by the authors than was justified by facts.

Dr. Ware thought that in looking back over thirty years' practice, any one could remember cases of an apoplectic nature that recovered entirely. Perhaps these cases now would be referred to embolism. On the other hand, where the attack is due to serious disease of the brain or arteries, although the patient may seem to improve, within a year another attack will follow.

Medical and Surgical Journal.

Boston: Thursday, April 11, 1872.

PRACTICAL QUESTIONS FOR THE YOUNGER MEMBERS OF THE PROFESSION.—No. II.

How shall I employ my time while I am "waiting for patients?" This is a question which very naturally comes up to the mind of every young man when he finds himself fairly launched in medicine. He may have selected his residence in some populous city, where the shining door-plate marks every third house as a doctor's—quacks perhaps two thirds of them may be, but still, in this land we sometimes call *free*, "doctors" they are and must be. Perhaps his sign is exposed in some town or village, among the mountains or on the prairies; it matters not where it is—wherever our young men are settled, from Maine to California, the same ordeal must be entered on and the same trial must be borne, the same weary waiting for practice.

From a life of comparative activity in study or in hospital work, the young man suddenly finds he has nothing to do; practice is a misnomer; weeks and months go by, patients fail to appear, and, save the merest pittance, no pecuniary reward is received. It is not more sure that every medical student believes himself the victim of heart disease than that the young physician regrets the day when he ever opened an anatomy. He feels himself able and willing to work, but the chance for exertion will not come. The very choicest years of his life are slipping by, and the opportunity to carve out for himself a name and an honorable position *will* not come.

We have not said these things to distress or dishearten our younger friends; they are serious *facts* which are in the experience of every man, and, rather than say less, we should say more, that you will have occasion for such reflections for *years*, unless you are more fortunate than the great proportion of your fellows. One motive for making such remarks, however, is to remind you, in the way of encouragement, that such has been the experience of *all* those around you whom you esteem successful physicians, and they have only attained their present position by faithful, honest and persevering work.

Now, how shall the young physician fill this portion of his life record, so that he may benefit himself and his neighbors. To leave the time vacant is impossible; to fill it usefully is in every man's power; to spend it uselessly or culpably would lower the man to the scale of the brute. The first and natural suggestion to make to a literary man is *to study*, a suggestion which might perhaps be rejected by one who feels that he has just *completed* his studies and has happily passed through the curriculum of his student days. Those of us, however, who have been ten years in practice feel that, at the best, we know very little about medicine; that the human body is a tissue of facts of which we are beginning to unravel only the outer meshes; and that, the longer we investigate and the deeper we look, the more intricate and inexplicable the network becomes. Medicine, as studied in many of our schools, is but a very meagre affair, and the review of one text-book on each subject of medical lore gives but a feeble support at the time when the young physician stands at the bedside of his patient. Bring to mind a disease or an injury, simple or complicated, and we shall find that no one of the text-books will give the details of diagnosis, prognosis and treatment in a way to be all sufficient for the physician. The student life of every man gives him simply the skeleton of his life work; he must carefully and thoughtfully study out each disease *in its details;* and, for this purpose, must go beyond the meagre text-books to those special monographs which hard-thinking and hard-working men have elaborated for his use. Still farther than this, he will find in every disease, if he is a careful observer, an infinity of minutiæ and variations which no book *can* give him, and which he must work out by careful thought and clinical observation. This is what we mean by farther study; let the young man fill in, with muscle and sinew and integument the skeleton the professor has builded, and—after all, he may find that he has been tripped up at his first bedside by facts which he thought well fixed in his memory, or to whose existence he has never given a thought.

Farther study does not consist alone in reviewing the accumulated work of the past. Rational or legitimate medicine is constantly new, and claims for its use *any truth*, whatever its nature, which can be proved by the *men of to-day* to be serviceable for the relief of human suffering. It may be as old as Hippocrates or it may be the thought of the youngest medical man; it may have been worked out by the plodding German brain or by any other member of the medical brotherhood; it may be a fact which shall flash upon us, astonished we have not sooner recognized it, or it may show its power by slower stages; but whatever the truth, if truth it once be proved, medicine grasps it and makes it useful. We beg you, as young physicians, in duty to yourselves and to those under your charge, *to keep up with medicine* in these her onward advances, read the best current medical literature of the day; start your medical life by putting yourself, in this way, in communication with the men who are the workers of the *present day;* or else, ten years hence, you will find yourself, where you deserve to be, shelved as "an old-fashioned doctor who does not keep up with the day."

The *thorough* study of the course which his student life laid out for him, while it will recall most of that which is already known on various subjects, will point out to many a thinking man paths for *original investigation and study*. A physician is not generally born a specialist, he rarely becomes one on entering the profession; but some fortuitous circumstance determines him in a certain direction, and thus gives a bent to his mind which may benefit both him and science.

At the present day, *Pathology* offers a large field for original research, and when one has reviewed and rediscovered for himself the facts pointed out by Virchow, or Rindfleisch and Foerster, and a hundred others, there are a host of others still to be solved by the scalpel and the microscope. The *Microscope* opens a world of knowledge which may claim notice from those who are seeking a field for investigation. We may well feel ourselves commencing to grasp the forces of nature when we resolve the body to its elements and seek, in the ultimate anatomy and physiology of the cell, the sources of life. Most students must ever be plodders on in the footsteps of former investigators; but they will find a new interest in science when they prove for themselves great facts which have already been discovered for them. But, beyond these beaten tracks, there are thousands of by-paths which lead off in various directions and open new views, and, it may be, one, who has been tempted in his early years of medical life over paths already trodden, may find some side way leading to new fields for interesting and valuable original discovery.

Chemistry, clinical medicine, physiology, midwifery, all offer topics to our mind, which might well be made the subject of special study, but for which we have no space at present; nor have we time to speak of other methods of employing his time beside those which may immediately benefit the physician himself. Every medical man is called, in one way or another, to work for the poor, and, though the service seems to many a thankless one, there are rewards and substantial ones for those who take hold of the work with a good heart and willing hand. Dispensaries and organized methods of aiding the sick and destitute offer an abundance of working material in our cities and many of our towns, and everywhere throughout the world the ear of one ready to give assistance can always detect the cry of suffering and want.

Without mentioning numberless other methods of employment which may be resorted to by our young men, we say, only, in conclusion, we have sought to point out *some* methods of *keeping busy* in those early days when time hangs heavily on your hands and inducements are offered on every hand to misspend it. *Keep some useful employment on hand all the time;* no matter whether it promises a large immediate return for labor expended or not; let it be honorable, conscientious and useful work, and the time will come when you will see a result; and we trust you will not regret the judicious employment of your early professional hours.

THE SYPHILIS-CORPUSCLES OF LOSTORFER.—We are informed that the committee of accomplished microscopists appointed from the Boston Society for Medical Observation to investigate the subject of syphilis-corpuscles in the blood have reported, as the unanimous result of their individual and independent researches, that their conclusions are negative; that the bodies described by Lostorfer as peculiar to syphilitic blood were found in the blood of syphilitic patients and of healthy persons as well; and that the so-called corpuscles appear to have their origin in certain physical or chemical changes to which the blood globules are subjected in the course of prolonged microscopic examination.

THE ACTION OF QUININE ON THE WHITE CORPUSCLES OF THE BLOOD.—In order to verify the assertion of Bins on the property possessed by quinine to arrest the movements of the white corpuscles of the blood, and the value of the objection suggested by Professor Stricker that the acid contained in the solution caused the effects obtained, new experiments have been tried. Incited by the observations of Mosler on the cure of certain cases of leukæmia by the administration of quinine, Kerner has employed a neutral salt of quinine, for instance the chloride or the carbonate. Into a small quantity of the blood of a cat and of a dog he introduced at the temperature of the blood a solution of this salt, one part in 10, one part to 4000 of blood. Under the field of the microscope, the result was striking. The white globules became round and obscurely granular; their movements were arrested at once and completely.

Comparing these effects with those of other neutral salts, and pursuing his investigations, Kerner found that salicine, cafeine, atropine and arseniate of potassa were entirely inert, or had but a very feeble action in this direction. Quinine therefore remains the poison for lucocytes *par excellence,* without taking into consideration its antiseptic properties.—*Pfluger Archiv,* from *L' Union Med.,* Feb. 22.

A CORRESPONDENT states that recently he ordered for a gentleman of delicate nervous temperament, forty years of age, half an ounce of hydrate of chloral, dissolved in two ounces of water, to be taken in teaspoonful doses hourly until sleep was induced. Either by accident or design, after taking two regular doses, he took the remainder of the contents of the bottle, about 200 grains hydrate chloral, at a draught. When seen an hour afterwards, his head was lying in a quantity of yellow mucus which he had vomited, vomiting still continuing; pulse 40 and scarcely perceptible; inspiration gasping, 10 to the minute; complete insensibility; muscles flaccid, except that jaws were firmly set together, and the eyes wide open with pupils dilated; the nose, ears and extremities were cold, and the face was of a deathly pallor, while a leaden color was about the lips and under the nails.

He was immediately wrapped in warmed blankets. Heat was applied to the extremities; a sinapism over the heart, and an enema of dilute aqua ammonia administered.

Rallying took place very slowly but steadily. The only other treatment he received was ice to the head, and small doses of tartar emetic during the reactionary stage, when the pulse ranged as high as 130.

An Act against Empiricism.—The following are the provisions of an act entitled "an act to protect the citizens of Wyoming Territory from empiricism and elevate the standing of the medical profession."

Section first makes it unlawful for any person to practise medicine or surgery in any of its departments, for reward or compensation, who has not attended two courses of instruction in a school of medicine, or who cannot produce a certificate of qualification from some regular medical society.

Section second makes it incumbent upon all persons now practising medicine or surgery, to file a copy of his or her diploma or certificate with the County Clerk, making oath that they are the *identical* person named in the diploma or certificate.

Section third provides a penalty for a violation of sections one and two, of a fine of fifty to one hundred dollars for the first offence, and imprisonment in the county jail not less than ten days for the second; and in no case wherein this act shall have been violated, shall the person so violating receive any compensation for services rendered.

Section fourth exempts dentists and surgeons of the United States army from complying with the provisions of this act.

The above act was passed by the late Legislature, signed by the Governor, and is now the law.—*Medical and Surgical Reporter.*

On Sick-Headache. By Samuel Wilkes, M.D., F.R.C.P., F.R.S., Physician to and Lecturer on Medicine at Guy's Hospital.—The true cause of sick-headache lies deep in the patient's idiosyncrasy, and is developed by a hundred different causes. The advice, then, to sufferers, is to give as much tone as they can to their nerves by adopting all those methods which experience has shown to be good, and then avoid as far as is practicable, all those causes which are known to excite an attack. I need scarcely describe a sick-headache—how one rises in the morning more dead than alive, perfectly unable to swallow the smallest particle of food, and often perhaps actually sick; how the head throbs, and the pain increased by the slightest movement; how speaking or doing is a burden beyond bearing; how one prays to be left alone in the utmost quiet, so that he may, if possible, sleep. To other persons the sufferer looks extremely ill, very pale, dark around the eyes, and with contracted pupil. To himself his head feels hot, and the application of cold is most refreshing. The clamminess in the mouth, the nausea, and general gastric disturbance, are secondary, and have no connection with any improper meal, and thus is in no way relieved by the too frequent and ignorantly administered purgative. This is not needed, and has no good result. The only remedies which are of any avail are those which act on the nervous system, such as hot tea and coffee; or, after the stomach is quieter, and the more urgent symptoms have passed off, a little wine or ammonia. If the headache take more the form of hemicrania, then remedies are occasionally useful, as the local application of the bisulphide of carbon, or galvanism, and internally the bromide of potassium. This is the only drug which I have really seen to be serviceable. Whilst the nausea exists and the worst symptoms prevail, even this remedy is of no avail—*British Med. Journal.*

Control of Hemorrhage by Ipecac.—Dr Martin reports to the *New York Medical Journal* a case of capillary hæmorrhage controlled by small doses of ipecac, given until vomiting occurred. The tonsil had been injured, and ordinary styptics not proving efficacious, recourse was had to ipecac. As soon as vomiting occurred, after two-grain doses of the medicine given every two hours, the hæmorrhage was effectually checked.—*New York Medical Journal.*

Medical Miscellany.

Operations Performed under the Influence of Ether at St. George's Hospital.—The numerous fatal cases following the administration of chloroform which have been recorded seem to have induced some of the London surgeons to try again *ether* as an anæsthetic agent. In the *Lancet* for Dec. 2, 1871, are recorded some cases of this kind, and it is remarked: "Excepting that for harelip, all these operations were performed during anæsthesia produced by ether apparently with as much ease and rapidity as is usual with chloroform. In two cases, those of adults, in which the time was noted, insensibility was produced in five and four minutes and a half respectively. The inhaler employed by Mr. Haward consisted of a cone of felt, into which a small sponge was introduced, and which was so constructed that the ether could not drain down on to the patient's face. One child vomited some undigested food, but sickness did not occur in any of the other cases.

"The only outward difference between the administration of ether and that of chloroform appeared to be the more frequent replenishment of the inhaler, and the very appreciable extent to which the theatre became pervaded with the vapor of the anæsthetic."—*Med. News and Library.*

Lunar Obstetrics.—Dr. Michel, of Cherbourg (*L'Union Médicale,* Feb. 1872), adds one more to the superstitions of the lying-in room enumerated by Dr. Symes Saunders in the Journal of Feb. 10th. When the moon does not change in the nine days which follow an accouchement, the sex of the next child will be the same as that of the preceding one. Dr. Michel even takes this seriously, and affirms that he has verified it by collecting old almanacs and interrogating all the ladies he knew, and "even those he did not know," who were a little astonished at his questions. Not content with verifying, he has prophesied on these data, and always correctly. He notes, however, the intervention of *miscarriages* as a disturbing element in the calculation, for the embryos have a sex which must be counted. He invites his colleagues to collect their old almanacs, and to join in a statistic which he believes will lead them to the same profound conviction in which they have landed him. If the lunar influence seem a little far-fetched, he appeals to the menstrual periodicity as a collatteral and attenuating base for the fancy.—*Brit. Med. Jour.*

Prodigious Gall Stones.—At a recent meeting of the London Pathological Society, Dr. Thorowgood exhibited, for Dr. Locke Johnson, two gall stones which he removed from a female patient, aged 67, and who suffered no inconvenience from their presence during her lifetime. They completely occluded the gall bladder; assumed its shape; were composed principally of cholesterine, and weighed, at the period of removal, 580 grains, the larger of the two weighing 420 grains.—*Med. Press and Circular.*

Mrs. Keep, widow of the late Henry Keep, of New York city, has given $100,000 to the Ophthalmic Hospital for the purpose of enlarging its accommodations and making provision for the reception of free patients.—*Med. and Surg. Rep.*

To Correspondents.—Communications accepted:—Irritable Uterus.—Case of Retained Placenta.—Case of Pregnancy with unruptured Hymen.—Ramollissement Rouge.—The Lostorfer Corpuscles.—Cases of Tracheotomy.

Book Received.—Annual Report of the Board of Regents of the Smithsonian Institution, showing the Operations, Expenditures and Condition of the Institution for the year 1870. Washington. Pp. 494.

Pamphlets Received.—The Transactions of the New York Academy of Medicine. Vol. III. Part 11. On Diabetes, by Gouverneur M. Smith, M.D. Pp. 47.—On the Uses and Derangements of the Glycogenic Function of the Liver. By Gouverneur M. Smith, M.D., New York. Pp. 11.—Report of the State of the New York Hospital and Bloomingdale Asylum, for the year 1871. Pp. 24.—Defence of Taxis in Strangulated Hernia. By C. C. F. Gay, M.D., Buffalo, N. Y. Pp. 8.—Proceedings of the Twenty-first Annual Meeting of the New York State Homœopathic Medical Society, held at Albany, on Tuesday and Wednesday, Feb. 13 and 14, 1872. Pp. 11.

Married,—In this city, April 2d, John S. H. Fogg, M.D., to Mary Griselda, daughter of Rev. J. H. Clinch, all of this city.

Deaths in fifteen Cities and Towns of Massachusetts for the week ending April 6, 1872.

Cities and Towns.	*No. of Deaths.*
Boston	154
Charlestown	15
Worcester	29
Lowell	11
Milford	7
Cambridge	15
Salem	11
Lawrence	7
Springfield	8
Lynn	16
Fitchburg	5
Newburyport	7
Fall River	9
Haverhill	9
Holyoke	4
	307

Prevalent Diseases.	
Consumption	51
Pneumonia	42
Scarlet fever	15
Smallpox	12
Croup and Diphtheria	10
Typhoid Fever	8
Measles	6

There were ten deaths in Boston and two in Fitchburg from smallpox. The deaths from measles were all in Boston.

George Derby, M.D.,
Secretary of State Board of Health.

Deaths in Boston for the week ending Saturday, April 6th, 154. Males, 84; females, 70. Accident, 3—apoplexy, 6—asthma, 1—anæmia, 1—inflammation of the bowels, 1—bronchitis, 5—congestion of the brain, 2—disease of the brain, 9—burned, 1—cerebro-spinal meningitis, 1—cancer, 4—cyanosis, 1—consumption, 25—convulsions, 3—croup, 3—debility, 4—diarrhœa, 1—dropsy, 2—dropsy of the brain, 3—diphtheria, 1—epilepsy, 1—scarlet fever, 8—typhoid fever, 2—disease of the heart, 3—intemperance, 2—disease of the kidneys, 4—congestion of the lungs, 5—inflammation of the lungs, 12—marasmus, 1—measles, 6—old age, 8—paralysis, 3—pleurisy, 1—premature birth, 1—peritonitis, 2—puerperal disease, 1—pyæmia, 1—rheumatism, 1—smallpox, 10—unknown, 6.

Under 5 years of age, 53—between 5 and 20 years, 21—between 20 and 40 years, 31—between 40 and 60 years, 20—above 60 years, 29. Born in the United States, 102—Ireland, 42—other places, 10.

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Original Communications.

ANÆSTHESIA OF THE RETINA.

By O. F. Wadsworth, M.D. Read before the Boston Society for Medical Observation.

Under the title Anæsthesia of the Retina, Graefe, in 1865,* called attention to a class of cases of disturbance of vision which may, perhaps, from their clinical history, in default of more exact knowledge of them, be properly placed under the general head of the *so-called* hysterical affections. The title may, at first sight, seem to be a misnomer, since an increased sensitiveness to light is usually one of the prominent symptoms, and may even amount to intense photophobia; it may, on the other hand, however, be wholly absent, while a marked anæsthesia of a greater or less portion of the retina is invariably found.

But little is to be found on the subject in the more recent text-books on ophthalmology; some do not mention it at all; Schweigger† gives the best account of it; Soelberg Wells‡ describes it under the head of hyperæsthesia of the retina, from which it is distinct, and combines the symptoms of the two affections, but does not allude to those cases in which hyperæsthesia is absent; Stellwag§ devotes but a few lines to it.

The affection is infrequent, and the chain of symptoms which it presents, therefore, liable to be in part overlooked, and its nature misinterpreted. It is almost invariably readily amenable to proper treatment, and it is of the more importance that it should be early recognized, since, aside from the general advantage of a good prognosis from the first, a cheerful frame of mind on the part of the patient exercises here a specially favorable influence toward recovery, while without any or with injudicious treatment its course may be indefinitely prolonged.

The main symptoms of the affection are a diminution of central vision, often attended with increased sensibility to light, and a narrowing of the visual field. The central vision may be totally abolished, but it is generally comparatively little affected, seldom sinking below ⅓ or ¼; on the other hand the contraction of the visual field is always strongly pronounced, usually more or less nearly concentric, but sometimes irregular, and presenting considerable variations from time to time. Coincident with these threatening symptoms we find, however, that phosphenes are readily excited by slight pressure on those parts of the retina which are completely insensible to the stimulus of light, and an ophthalmoscopic examination shows the media clear, and an optic nerve, retina and choroid of perfectly normal appearance, even when the disturbance of vision has already existed a long time. Another peculiarity of diagnostic importance is that both the acuteness of vision and the size of the field increase, or at least do not diminish, when tested by means of weakened illumination or when colored glasses are placed before the eyes. Photophobia, as already stated, may be present in high degree, and then tends to mask the other symptoms, or may be wanting, and it is in general proportional to the nervous excitability or hysterical disposition of the patient. Beside the symptoms noted, there is also in many cases a spasmodic action of some of the facial muscles, excited or increased by exposure to bright light, or localized cutaneous hyperæsthesia or anæsthesia of varied situation. Pain in the eyes, headache, neuralgia, and even perversion of the moral as well as physical faculties have also been observed, but are only rare accompaniments of the usual symptoms.

The disease generally occurs in women and children, especially such as are of a nervous or excitable temperament, less frequently in men; and it is worthy of note that the reverse is the case with all other amblyopic affections, in them men furnishing the majority of patients. The attack is usually, but not invariably, sudden, and as a rule both eyes are affected, though it may be in different degree. In rare instances, there seems to be no predisposing or exciting moment, the patient enjoying full health up to the time of the attack. More often it comes on during convalescence from disease or injury, while frequently a fright or other sudden mental excitement, or a slight blow on the eye or superficial injury furnishes the immediate exciting cause. In the latter case, the injured eye is generally alone affected.

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* Klin. Monatsbl. f. Augenheilk., 1865, p. 261. Translation in this Journal.

† Handbuch d. speciel. Augenheilkunde. Berlin, '71.

‡ Treatise on the Diseases of the Eye.

§ Treatise on the Diseases of the Eye. Translation.

The treatment should be generally supporting, tonics, fresh air, rest of the eyes and exclusion of bright light. The preparations of zinc, especially the lactate, have been highly recommended by Graefe; cases have been reported, also, in which the subcutaneous injection of strychnia over the temples apparently produced a rapidly beneficial effect. The importance of preserving a cheerful frame of mind in the patient has been already alluded to, and Graefe states that he has seen decided relapses in patients who were previously doing well when from any cause a depression of spirits had been produced As the following case presents a good example of the affection, I give it in some detail.

Nov. 21st, 1871.—A slightly-built, pale and anæmic-looking boy of 9 years, presented himself at the dispensary, complaining of imperfect vision and dazzling, which had existed for two weeks. He stated that, while at school and looking at the blackboard, he felt a sudden sensation of dazzling, causing him to spasmodically close his eyes. He leaned his head forward on his desk for a moment or two, and on raising it again found he could not see distinctly. His condition had remained unchanged till I saw him.

As he sat facing the window, there was a slight spasmodic twitching of the orbicularis muscle on both sides; not, however, continuous. The external appearance of the eyes presented nothing else abnormal. The central vision was but little below the normal, but a rough examination of the visual field discovered a marked concentric narrowing in both eyes. The ophthalmoscope showed a fundus of perfectly normal appearance in all parts and alike in the two eyes.

A more careful examination, made a few hours later, gave the following particulars. The spasmodic action of the orbicularis is most marked when the patient is exposed to bright light or when he tries to read, but is never very great; it occurs also occasionally in less degree when he is seated with his back to the window in a moderate light. The pupils are of normal size, and the irides—of normal appearance—react readily to the stimulus of light. With moderate light

Right eye, Hm $= \frac{1}{42}$, V $= \frac{15}{20}$ nearly.
Left eye, Hm $= \frac{1}{36}$, V $= \frac{15}{20}$ nearly.

Together, V same as with either eye alone.

With diminished light, or on holding a pretty-dark blue glass before the eyes, the vision rose to $\frac{15}{15}$ nearly. This amount of vision corresponded very closely to that of a normal eye under the same conditions.

$$\text{Accommodation} = \frac{1}{3\frac{1}{2}}$$

$$\text{Relative A at } 12'' \begin{cases} +13 \\ -10 \end{cases}$$

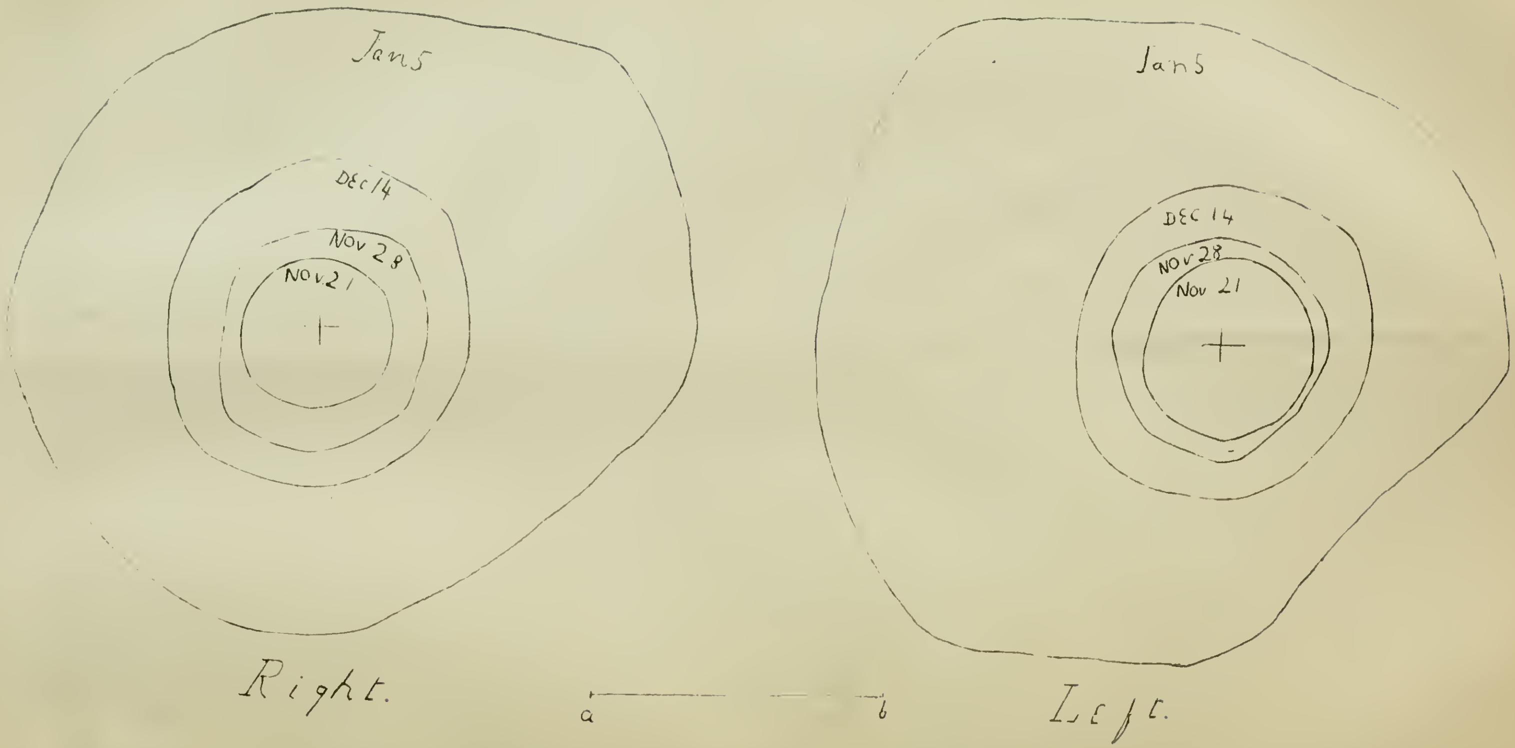
The field of vision, carefully mapped out on a blackboard at a distance of 1′ from the eye, showed a strong concentric narrowing, that of the right eye being 6¼″ in the vertical, 6½″ in the horizontal diameter; of the left eye, 7¾″ in the vertical, 7¼″ in the horizontal diameter.

Diminished illumination caused no appreciable change in the size of the field.

Colors were easily distinguished. Phosphenes were readily produced by slight pressure on parts of the retina far outside of the district still sensitive to light. No increased or diminished cutaneous sensibility anywhere to be discovered.

The boy was quite intelligent and appeared rather to enjoy the examination, but it was noticed, both at this and several subsequent visits, that the eyes soon became tired while looking at the black-board, even with very moderate light. As his condition improved, however, this rapid tiring of the eyes disappeared. The twitching of the orbicularis also passed off in a few days.

A careful inquiry into his previous history, both of himself and his parents, failed to discover any immediate exciting cause for his trouble. He was always bright, cheerful and active, but never robust, and his health was easily disturbed. During the last summer he had had a cough for some weeks, and since, there was occasional slight pain and lameness across abdomen, and he was easily tired by going up stairs quickly. Three months before I saw him, he broke his left arm near the elbow by a fall down stairs, and, as he says, it was refractured a month later by a surgeon on



This figure represents the size and form of the field of vision on four different days. The size of the figure corresponds to a distance from the eye of 1½″. (Line *a b.*)

Vol. ix., p. 247.

account of bad union. He wore splints five weeks longer, leaving them off about a week before the trouble in vision came on. He considered himself at this time to be in his usual health. He was advised to wear blue glasses, not to attempt to use the eyes, and to avoid bright light as much as was consistent with a maximum of fresh air. Lactate of zinc was prescribed, gr. i. thrice daily.

The following day, Nov. 22d, was cloudy and dark, and the vision had risen to $\frac{15}{15}$. The field, too, showed a decided improvement, being, right, $8\frac{1}{2}''$ vertical, and $8''$ horizontal diameter; left, $9\frac{1}{2}''$ vertical, $8\frac{1}{4}''$ horizontal diameter. The size remained the same when the room was darkened and the only illumination was that from an ordinary circular gas-burner, placed 14 feet from the blackboard, the flame $\frac{3}{4}''$ high.

Nov. 23d.—The day bright and the field less than on 22d, though still larger than on 21st.

Right, $8''$ vertical, $8\frac{1}{4}''$ horizontal diameter.

Left, $7\frac{3}{4}''$ vertical, $8\frac{1}{2}''$ horizontal diameter.

It is worthy of remark that up to this time he had not taken the lactate of zinc, there being none on hand at the dispensary, and he had only obtained the blue glasses shortly before this visit.

On this day, the effect of glasses of various colors was observed. With a red or yellow glass before the eye, the field underwent no change; with green or blue glass, as when the room was partially darkened, it seemed a trifle larger, but the difference was very slight.

Nov. 28th.—To-day patient begins to take the lactate, having taken valerianate of zinc since the 23d. First, to-day, is there a decided increase in the size of the field on diminishing the light. With moderate light and blue glass the field is—

Right, $9\frac{1}{2}''$ vertical, $8\frac{1}{4}''$ horizontal diameter.

Left, $9\frac{1}{4}''$ vertical, $9''$ horizontal diameter.

Room much darkened and blue glass—

Right, $10\frac{1}{3}''$ vertical, $8\frac{3}{4}''$ horizontal diameter.

Left, $9\frac{1}{2}''$ vertical, $9\frac{1}{4}''$ horizontal diameter.

Dec. 7th.—The field has slowly but steadily enlarged, and the increase in size with diminished light become more marked. At $1\frac{1}{2}$, P.M., the field was measured carefully; then $\frac{1}{45}$ gr. of strychniæ sulph. was injected subcutaneously over the left temple. Five, ten, and thirty-five minutes after the injection, the measurements were repeated. They showed a slight increase over the measurements made before the injection, but the sky had in the meantime become somewhat cloudy, and the light was therefore a little less.

It was my intention to repeat the injection on the following day, but when the boy appeared, at 2, P.M., he stated that he had waked that morning with occipital headache and dizziness, and the headache still continued. The field showed a slight increase, but the day was cloudy. On account of the headache which the first injection produced and its apparent inefficiency, no farther injection was made.

Dec. 14th.—Field, right, $13\frac{3}{4}''$ vertical, $12\frac{1}{2}''$ horizontal diameter.

Left, $13\frac{1}{4}''$ vertical, $12\frac{1}{4}''$ horizontal diameter.

Considerably larger with diminished illumination.

On Dec. 18th, patient got cod-liver oil and iron, but this caused nausea and was soon omitted, and on the 28th, tincture of the chloride of iron was given, and the dose of the zinc increased to gr. iss.

Jan. 5th.—Field has steadily increased, the increase being much greater in the left eye on the outer side.

Right, $26\frac{1}{4}''$ vertical, $28\frac{1}{2}''$ horizontal diameter.

Left, $26\frac{1}{2}''$ vertical, $28\frac{1}{2}''$ horizontal diameter.

Zinc increased to gr. ij. three times daily.

Jan. 11th.—Field normal on both sides. The zinc has caused nausea the last day or two—omit zinc. May leave off blue glasses on cloudy days.

Jan. 17th.—Field normal;

$$V = \frac{15}{12};\ A = \frac{1}{3\frac{1}{2}}$$

$$\text{Relative A at } 12'' \begin{cases} +12 \\ -10 \end{cases}$$

The fundus had been repeatedly examined during the treatment and no change was at any time observed. He was advised to refrain from much use of the eyes for a while longer, to continue the iron, and to leave off the blue glasses only gradually.

The suddenness of the onset, the age of the patient, the dazzling, the spasm of the orbicularis, the slight decrease of central vision, which immediately rose under blue glasses or on lessening the amount of light, the concentric narrowing of the field, with reaction to pressure (phosphenes) of the anæsthetic parts of the retina, and, finally, the perfectly normal appearance of the fundus, gave an array of symptoms completely typical of the disease.

The favorable influence of diminished light seemed to be very evident. The field was decidedly larger on the second day of observation, which was dark and cloudy, than on the first and third, which were bright. During this time, too, the patient had taken no drug. Graefe advised that the patient should be kept for a few days in a dark room, and only gradually allowed more light, but the importance of this is in direct proportion to the photophobia. In this case, the photophobia was slight, and I considered that in the anæmic condition of the boy more harm than good would be likely to result from such confinement.

Two theories were advanced by Graefe to explain the phenomenon of a temporary anæsthesia of part of the retina. The one supposed a minute, perhaps molecular change in the nerve-substance, rendering it unfit to conduct the impressions received; the other, that an affection of the vasomotor nerves existed, which changed the conditions for the supply of blood, either by allowing dilatation of the walls of the vessels, or in some other way. The latter he considered the more probable.

Neither of these theories appears satisfactory. The supposition, either of a minute change in the nerve-substance, or of a deviation from the normal supply of blood, does not readily explain the sudden and abruptly defined contractions of the field which occur, or the rapid variations in its size under the influence of different degrees of light. Against the second theory also speaks the fact that in several recorded cases, as in mine, it has been expressly noticed that no change in the size of the vessels could be perceived during the whole course of the treatment.

It has also been assumed that the trouble, whatever and however temporary it may be, is situated in some portion of the retina external to the nerve-fibre layer, since the appearance of phosphenes on pressure of parts of the retina insensible to light must show that the conducting power of the nerve-fibre layer still remains.

This opinion, too, seems to me not well-founded, for we can easily comprehend that the stimulus of pressure on the elements of the retina may give rise to a sensation when that of light will not, just as a motor nerve which has become insensible to mechanical violence may still respond to an electric current.

We can only say, therefore, that the nature of the disturbance remains as yet entirely hidden.

I append an abstract of such cases of the affection as I have been able to find recorded to illustrate the variety of symptoms it may present.

Graefe* gives the details of one case, and refers briefly to another. The first was a boy of 10 years, somewhat excitable, but always healthy. While walking in the country, a tree near him was struck by lightning, and he was greatly frightened. The next day, disturbance of vision of right eye and twitching of right side of face was noticed. Three weeks later, right vision $\frac{1}{3}$; great photophobia; field much narrowed, but enlarging slightly with diminished light or blue glass. Phosphenes over anæsthetic parts. Fundus normal. Left eye unaffected. Tempered light, zinc, iron. Recovery in four weeks.

The second was a boy of 8 years. After anæsthesia of peripheral parts of retina had continued some time, the photophobia one day increased, and the following day the sensitiveness of the periphery was entirely restored, while at the same time a large central scotoma appeared. The boy was delicate and excitable; the trouble occurred during convalescence from measles. Recovery under same treatment.

Haase† reports a case from the ophthalmic hospital at Wiesbaden. The patient was a girl of 17, who had suffered for more than two years from dazzling, headache, nausea, &c., and one year before had had chorea. Five months before, she was struck on the left eye by the cork of a seltzer-water bottle. She stated that, immediately after, she could only distinguish light and darkness with this eye, and this condition had continued unchanged. The left eye counted fingers imperfectly at 18″; field much contracted concentrically. Vision of right eye also slightly diminished, and field narrowed. Blue glasses increased the size of field a little, and phosphenes were readily excited in both eyes. There was a considerable degree of myopia, but, aside from slight changes to be referred to this, the fundus normal. Zinc, rest and dark room; later, iron. Recovery. Haase also gives, from the records of the hospital for 1862, the account of a case, the symptoms of which leave no doubt that it was of the same nature. It was not recognized, however. Active antiphlogistic treatment was adopted, and five months later, the patient remained in the same condition.

Schroeter‡ reports the case of a boy of 15, who had had severe typhoid a year before, but appeared to have entirely recovered. He received a superficial wound of right cornea, which healed in a few days, but vision meanwhile sank to $\frac{1}{200}$, and field became very much contracted. Vision and field decidedly increased under colored glass. Phosphenes present. Fundus presented nothing abnormal except slight enlargement of vessels; the enlargement of the vessels also existed in the other (sound) eye, though less. Rapidly improved under bandage of right eye, dark room, zinc; later, iron; but increased sensitiveness to light continued some weeks after vision and field were restored.

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* Loc. cit.

† Monatsbl. f. Augenheilk., 1866, p. 251.

‡ Monatsbl. f. Augenheilk., 1867, p. 126.

Dr. Alexander[*] relates a case under title of hyperæsthesia of retina. The patient, a man of 26, had suffered some months from intermittent attacks of cardialgia, to which, after a time, neuralgia of both trigemini, spasmodic action of facial muscles and photophobia were added. The pain yielded, finally, to arsenic, but photophobia continued. For some time before the neuralgia disappeared, the patient had noticed progressive diminution of vision. Vision much diminished, and field much contracted. Ophthalmoscopic examination difficult, on account of photophobia; media clear, optic nerve and vessels at their exit perfectly normal, but at outermost periphery of retina the vessels appeared as if covered by a veil, and were indistinctly seen. No inflammatory symptoms of choroid or retina present. The veiling of vessels at the extreme periphery Dr. A. considered due to venous hyperæmia. Recovery under exclusion of light by bandage, zinc and iron. In view of the confessed difficulty of examining the whole fundus, and the perfectly normal appearance of the vessels at and near the nerve, the correctness of the diagnosis of venous hyperæmia of the periphery seems doubtful. Certainly it is not very uncommon, on examination through a small pupil, to perceive a greyish shimmer and some indistinctness of the vessels at the equatorial parts of the fundus, which appearances, however, vanish on dilating the pupil by atropine.

Talko[‡] reports the case of a stout, healthy soldier of 27, the left side of whose face was sprinkled with powder and sand by the discharge of a gun at a distance of four paces, which produced, also, a small burn or wound of the conjunctiva at edge of cornea, and a superficial burn of the cornea adjoining. Immediate loss of vision of this eye (patient perceived only bright lamplight). Fundus perfectly normal, and remained so. Slight iritis came on opposite the injury of cornea, which passed off in a few days under atropine, bandage, &c. Phosphenes could be everywhere produced. Five days after injury, no improvement of vision. From this time, subcutaneous injections of strychnia in the neighborhood of the eye were made, and rapid recovery took place. During recovery, vision and size of field were increased by blue glass, and vision became normal sooner than the field.

Sichel *fils*[*] reports two cases. The first is given in great detail and presents many peculiarities. The patient, a merchant, was of delicate constitution. In 1856 he was affected with loss of sight of the right eye, accompanied at first by conjunctivitis. Atrophy of the optic nerve was diagnosticated by a physician whom he consulted. He recovered after a year and a half. In 1861 the same thing occurred, and atrophy of the nerve was again diagnosticated by two specialists, of whom Sichel *père* was one. Complete recovery in eight months. In 1868, when Sichel *fils* saw him, he was 28 years of age. Seventeen days before, he had had a sunstroke. The next day loss of consciousness for two hours, vomiting and purging. Two days later, severe headache, followed by progressive loss of sight of right eye. At the time of examination vision was totally abolished in the right eye, while in the left the field was much contracted and irregularly concentric in form, but vision was not much sunken. There was no photophobia then, though it appeared later. Phosphenes in both eyes. As regards the fundus, and in all other respects, the appearance of both eyes was normal. There was localized cutaneous anæsthesia and hyperæsthesia in different regions. In the course of the next few months many interesting phenomena were observed. The disturbances of cutaneous sensibility varied in extent, situation and degree. There was frequent intense neuralgia of the right side of head and face. Now, decubitus on right side, again, mastication was impossible on account of pain. The muscles of the right eye were at one time painful on motion, as if lamed; at another there was painful oscillation of this eye. Good appetite and digestion varied with anorexia and constipation. There were distressing nightmares and loss of sleep. Hysterical attacks, followed by short loss of consciousness, occurred. The sexual instincts were at one time completely wanting, at another excessive and perverted. Perversion of all the sensorial faculties and failure of memory were also noted. The treatment was carefully directed in every way to improve the general health. Eight months from the commencement of the attack the patient's state had greatly improved; the field of the left eye was larger, and with the right he could distinguish objects the size of a pencil at a distance of 3′. He returned home to continue the treatment. Eight months later, he wrote that his general health was excellent, and he had resumed his occupations, but was still subject to nightmares, attended with violent headaches. The right eye had constantly improved, but its field of vision was still less than that of the left. The distinction of colors was more clear during dry and cold weather; in damp and foggy weather it was confused, and when snow lay on the ground, he was almost unable to distinguish objects about him, sometimes everything appearing blue, sometimes red.

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[*] Monatsbl. f. Augenheilk., 1869, p. 43.

[†] Ibid., p. 79.

[*] Annales d'Oculistique, vol. lxiii. p. 201 et seq.

Sichel's second case was a washerwoman of 26. She also had had two similar attacks before, at the age of 8 or 9, and again at 15, each necessitating non-use of the eyes for some months. The third attack followed a fright. Patient anæmic. Choraic movements of face, right arm and shoulder, when she was at all excited. Sense of touch and cutaneous sensibility everywhere slightly diminished. Gastralgia, headache and irregular menstruation. Reading impossible, but vision for distance only moderately diminished, and slightly increased by blue glasses. Field somewhat contracted. Phosphenes easily produced. Fundus normal. Zinc, tonics and blue glasses were ordered, and recovery was complete in four months. In this case an exception to the general rule existed, in that the field became normal before the vision was entirely restored.

Nagel* relates the case of a strong and healthy boy of 15, who, without discoverable cause, had had occasional pain in the left eye, accompanied by a gradual loss of sight in it for nine weeks. The vision was $\frac{15}{70}$, the field concentrically contracted. Phosphenes were present on pressure. Fundus normal. Right eye normal. Recovery in eight days, under the use of subcutaneous injections of strychnia.

H. Pagenstecher* reports the case of a girl of 12, who had been well till one year previous, at which time a lameness of left leg appeared without perceivable cause, rendering the child incapable of walking. She recovered in four weeks, having taken strychnia the latter part of the time. In the course of the year the lameness occurred again five or six times, generally accompanied with headache, and once with decrease of vision, but passed off each time after a few days use of strychnia. When seen, the patient complained of gradual decrease of vision since four weeks, and almost continual headache the last eight days.

Vision much diminished, field much narrowed; both improved by colored glasses. This was the case in both eyes. Slight photophobia. Fundus normal. All colors readily distinguished. Gentle pressure on the closed lids caused intense flashes of color in left eye. Hyperæsthesia of whole left side of body, exactly limited to the median line, and on tapping or pinching any part of this side there was slight reflex spasm and appearance of colors before the left eye. The reflex excitement of colors was more marked on pressure of head or upper vertebræ, and accompanied by pain; below the ninth dorsal vertebra, and down whole lower extremity, appearance of color less, and no pain. Blue glasses were ordered, and for a few days there was some improvement; then a standstill. The constant current was now used, and it was found that, on placing one pole over the occiput or upper vertebræ, the same reflex appearances of color were produced as by pressure. After the medulla had been thus stimulated one half minute, the color-reaction ceased. An angina interrupted the treatment for a few days; then it was resumed, and after five daily applications of the constant current the vision and field were restored, and every abnormal symptom had disappeared. Pagenstecher considered that there was here some pathological process in the medulla.

A CASE OF SPASM OF THE ACCOMMODATION, WITH CONCENTRIC LIMITATION OF THE FIELD OF VISION; QUICK RECOVERY.

By Richard H. Derby, M.D., New York, Ophthalmic Surgeon to the Demilt Dispensary; late Assistant of Professor von Graefe, in Berlin.

Miss B., 17 years of age, of pale and anæmic appearance, has suffered for a year past from pain in her eyes while reading or looking at her music. She had to hold her book very close to her face and even then the letters looked blurred and the "words ran into each other." She has complained, too, of a mist arising before her eyes when she looked at persons across the table.

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* Die Behandlung d. Amaurosen und Amblyopieen mit Strychnin. Tübingen, 1871.

† Monatsbl. f. Augenheilk., 1871, p. 41.

Patient consulted me on the 3d of November, 1871. In both eyes there was myopia of $\frac{1}{60}$. Vision = $\frac{2}{3}$. There was a marked limitation of the range of accommodation, Jaeger No. 1 being read only between 2 and $4\frac{1}{2}$ inches. There was insufficiency of the internal recti in 10 inches of 12°. In 15 feet this insufficiency amounted to 7°, and for this distance the abduction was 12°. The ophthalmoscope showed the fundus of both eyes to be normal. After an instillation of atropine, an examination of the refraction revealed a hypermetropia of $\frac{1}{60}$ in each eye. On the right half of the face there was periodic twitching of separate muscles, particularly of the orbicularis; it was not marked, and lasted but a few seconds. There had been no intolerance of light from the outset. On the right cheek, over a region extending from the lower lid to the nose and back to a point immediately in front of the ear, there was diminished sensibility, and over this region a slight Faradaic current, which was distinctly felt on the other cheek, was not appreciated.

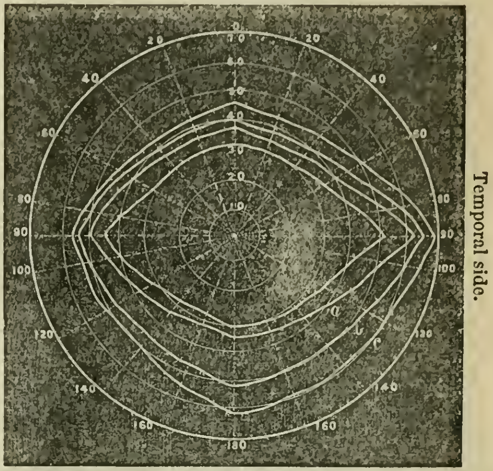
The case was regarded as one of spasm of the relative accommodation, and the patient was forbidden all use of the eyes, and directed to instil twice daily a solution of atropine. Blue tinted convex glasses, No. 60, were ordered to be worn constantly, and out-door exercise, with iron and quinine pills and cod-liver oil prescribed.

On the 23d of November, the eyes had had for twelve days entire rest. Last night, she had great pain in the eyes and over forehead and back of head. This pain was so great that she asked for ether and slept but little during the night. There was no change in the external or ophthalmoscopical appearances of the eyes. A careful examination of the visual fields was made, and it was found that she could nowhere excentrically count fingers. By lamplight, this diminution in the diameter of the fields of vision was a little less pronounced, as was also the case when the patient looked by daylight through blue glasses. *In every direction phosphenes could be produced.*

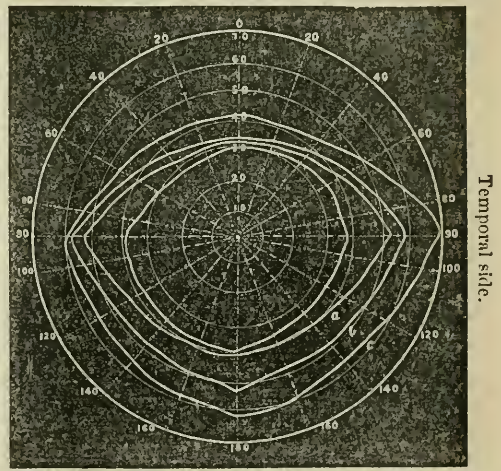
Having witnessed, at von Graefe's clinic, the good effect in these cases of the lactate of zinc, I ordered the patient this preparation in three-quarter-grain doses three times daily, and from day to day increased the amount until she received nearly five grains *per diem.*

The innermost of the concentric lines in the diagram represent the visual fields at the date of the commencement of this treatment. The gradual extension of the visual fields in every direction from time to time is made clear by the succeeding lines, *a*, *b*, and *c*. The fields of vision were mapped out by Förster's perimeter, the point of fixation being placed at 0° on the revolving arc and corresponding to the central point of the diagram. On the 30th of November, the vision of each was $\frac{20}{\text{xx}}$, or normal. The range of accommodation was no longer limited.

Right Eye.



Left Eye.



On the 5th of December, convex 30 combined with prism 2° (base inwards) for each eye was ordered, and the patient directed to exercise her eyes systematically by reading.

On the 8th of December an extension of

the visual fields in every direction was confirmed, and this gain continued until December 31st, when there was no longer any limitation.

The patient still has insufficiency of the internal recti, although of a less degree, and for this she uses convex prismatic glasses, with which she is now able to read without discomfort more than three hours daily. With an improved general condition, the symptoms of muscular asthenopia will probably entirely disappear.

The partial anæsthesia of the peripheric zone of the retina in this case occurs, according to von Graefe,* in excitable children and nervous or hysterical women. Such forms of anæsthesia, with loss of cutaneous sensibility to pain, with twitchings of certain muscles, particularly affect individuals of excitable temperament, the subjects of anæmia and those convalescing from severe disease. In our own case, the diminution of the central acuteness of vision was but slight, while there was marked concentric limitation of the fields of vision. This, as well as the sudden development of the affection and its short duration under treatment, was observed in von Graefe's cases. Of especial interest in reference to the prognosis in this case, was the retention of the phosphenes, for they could at all times be produced at points corresponding to the regions of the retina where there was no perception of light. This, as von Graefe pointed out, showed a loss of contraction between the rods and fibres of the retina, dependent on a local cause.

This disease almost always occurs in both eyes. The ophthalmoscope rarely reveals any change in the fundus, and the accompanying retinal hyperæsthesia is often very slight.

In the treatment of these cases, von Graefe placed his chief reliance on the internal administration of the preparations of zinc in increasing doses, following the method recommended by Jaksch in the treatment of a loss of cutaneous sensibility. When improvement has once commenced, recourse may be had to mild tonics, iron, salt baths and cold spongings. Exercise of the accommodation must be forbidden, and life in the open air insisted upon. The efficacy of the zinc treatment in affections of this kind was well illustrated in one of von Graefe's unpublished cases, where iron and other remedies were tried from time to time, but to no purpose. Zinc was then given and a return to the normal condition soon secured.

Reports of Medical Societies.

SELECTIONS FROM THE RECORDS OF THE OBSTETRICAL SOCIETY OF BOSTON.

SECRETARY, J. B. TREADWELL, M.D.

June 10th, 1871.—The President, Dr. Buckingham, in the chair.

Blighted Ovum.—Dr. Read read the case. Mrs. E., æt. about 20, not a very robust person, married three years; never before pregnant. Last menstruation began Feb. 25th. Began to flow slightly after taking her part in house cleaning on the A.M. of May 20th. She was ordered to go to bed, keep quiet, and have ferri sulph. and pulv. opii, with pulv. rhei; after this, she vomited freely. The medicine first ordered was discontinued, and potass. bromid. substituted. The case went on with varying reports, one day flowing a little less and the next a little more, until June 6th, when strong pains came on with an increase of the flow. The ovum came away entire on the morning of the 7th, at 2½ o'clock. It was as large as the largest lemon. On opening it, no trace of the fœtus or any prominence to which the cord should have been attached was to be found. It appeared to be thicker in one spot than elsewhere, and there was no trace of a placenta. It was filled with fluid. Dr. Read remarked that he could find no account of this kind of ovum. The separate membranes could not be distinctly made out.

Dr. Damon remarked that he had seen two or three cases of this kind, and had read accounts of others.

Dr. Ellis, who was present by invitation, said that he had seen many such. Either the growth ceases very early in them, or disintegration takes place.

Labor Complicated by a Tumor in the Posterior lip of the Uterus.—Dr. C. D. Homans reported the case.

The patient, a woman, 30 or 35 years old, had been well throughout pregnancy. When called to her in labor he found the head presenting and the os open. The liquor amnii had been flowing away for thirty-six hours. A soft body was felt behind the head. The case went on slowly. On the next day, the head had progressed but little; the soft mass had descended somewhat. Ether was given, the forceps applied, and the child was delivered alive in forty-five minutes, the tumor being pushed back as far as possible during the delivery. The tumor felt afterwards about as large as an orange. There was no hæmorrhage, and the woman did well. Dr. Homans supposed it to be a fibrous tumor.

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* Clinical Lectures on Amblyopia and Amaurosis, by Prof. A. von Graefe. Translated by Hasket Derby, M.D. Pp. 53.

Dr. Lyman, who was present at the delivery, said that the tumor was just below the promontory of the sacrum, at first, but afterwards slipped farther up.

Dr. Lyman asked if there had been any evidence of diminution in size of the tumor since delivery, and remarked that a tumor of the cervix which has developed rapidly during pregnancy generally diminishes after labor, as the uterus itself returns to its normal condition. Sometimes the uterine tissue covering it is bruised or lacerated during delivery to such a degree that the tumor becomes enucleated during the subsequent involution of the uterus.

Dr. Homans said there had been a marked change in the size of the tumor. It was situated in the wall of the posterior lip, and was much smaller than at the time of delivery.

Dr. Sinclair asked whether fibrous tumors are likely to be absorbed after the cessation of the menses.

Dr. Lyman thought they generally undergo no particular change, except that they are not so inclined to rapid and large growth as before. Occasionally they undergo a process of calcareous degeneration.

Erysipelas in a Puerperal Woman.—Dr. Cotting referred to the case of a puerperal woman suffering from phlegmonous erysipelas from vulva over perinæum and upward over whole back, which he had mentioned at a previous meeting. (See this Journal, No. 7 of the present volume, p. 105.) A few days subsequent to the last meeting, he opened an abscess in the left labium, and made an incision ten (10) inches long, in the right back, from the crest of the ilium upwards towards the ribs, parallel to the spine, and about two inches distant from it, with another of four inches, midway and at right angle to the first; and another over the left hip nearly parallel to the first. There was some hæmorrhage, and an intensely gangrenous odor from the sloughs and pus liberated. The patient is now getting up. She has had no uterine or abdominal symptoms whatever.

Dr. Abbot queried whether there was as much danger of peritonitis in a pregnant patient actually suffering from erysipelas, as there might be in a healthy woman exposed to the influence of the latter disease. He instanced the case of a brother practitioner, who told him that while attending a case of erysipelas requiring extensive incisions, he thoughtlessly attended a woman in confinement, who subsequently died of peritonitis, which he ascribed to the contagion of erysipelas communicated by himself.

Dr. Cotting referred to his cases of erysipelas previously reported, and said if the disease in question, *i. e.* erysipelas, was the source of infection to puerperal women, he did not understand why peritonitis, a different disease, and not erysipelas, the same disease, should be the result—small-pox would not give rise to measles.

Dr. Fifield thought there was a connection between erysipelas and peritonitis, but that we know very little about it; also that there is a relation between certain other diseases of the skin and those of internal organs—as between herpes circinatus and peritonitis, and herpes on the forehead and iritis, for instance. He had under his care a man, 80 years old, with sudden retention of urine. He supposed that it was due to enlarged prostate, and used catheter on three successive days, when herpes zoster, extending from the region of the kidney to the anterior median line, with insensibility of the skin, appeared, and the retention at once ceased. He had read somewhere that herpes zoster sometimes occurred in connection with diseases of the urinary organs.

Dr. Lyman thought one was not justified in attending lying-in women when he had the care of erysipelas.

Placenta Prœvia. Death from Shock.—Dr. Fifield reported the following case in the practice of Dr. Stedman, of Dorchester.

At the eighth month, he was sent for to see a patient who was flowing profusely. The os was not much dilated, and he applied Barnes's dilators one after another until No. 3 was introduced, when the hæmorrhage ceased. He went home to dinner, and was summoned to find the patient pale and faint. There was no external hæmorrhage. He removed the dilator and found what appeared to be a central implantation of the placenta. He passed his hand into the uterus and found enormous clots, and a placenta centralis; got hold of the feet and delivered quickly. Stimulants were given and the patient rallied, but died at 10, P.M., from shock. He had seen women die from shock occasioned by turning, when there was no hæmorrhage.

Dr. Lyman suggested that death might have been caused in this case by embolism of the pulmonary artery.

Dr. Read stated that in all such cases reported there had been attacks of syncope.

Abortion, followed by Leucocythæmia and Death.—Dr. Fifield was called to a young lady, pale and feeble, pregnant two months. She had been delivered previously without any trouble. A week before, she had flowed considerably and expelled a false conception; she did well. There was not much flowing. She took stimulants liberally. Vomiting subsequently began and persisted. A vaginal examination revealed nothing abnormal. The patient was pale, and there was blueness about the face, particularly in the labial regions. There was also a thrill in the veins of the neck. The spleen and liver were enlarged. Diagnosis, leucocythæmia. The vomiting was not in any way dependent upon the uterus. Prognosis, fatal. Two weeks later, he heard that the vomiting had ceased, but there was a recurrence one week subsequently, and in three days she died.

Erysipelas after Vaccination.—Dr. Wellington reported the case.

The patient was a healthy infant. On the tenth day after vaccination, erysipelatous inflammation commenced about the vaccine pustules, and gradually extended over the arm. An abscess formed near the elbow, which discharged freely. A week after the erysipelas began, a papular eruption appeared and spread over the whole body, lasting three days. A few papulæ had minute pustules at their summits. Constitutional symptoms were moderate. The disease lasted a month.

Virus taken on the eighth (8th) day produced a successful vaccination in another child, with no bad results.

A child vaccinated with the same virus as was used in the case just described, went through the disease regularly.

Dr. Lyman asked if these cases were properly erysipelas or erythema.

Dr. Buckingham said there was vesication in some cases. Had seen abscesses after re-vaccination and death following in two cases.

Abnormal turn of Child's Head during Labor.—Dr. Abbot reported the following. In a case of labor which he had recently attended, he found a left occipito-iliac presentation (forehead to the right acetabulum). The labor progressed well for a while, and he looked for the usual turn of the head, so as to bring it into the first position (forehead to right sacro-iliac synchondrosis). But to his surprise, as it advanced the forehead turned forwards under the pubes. The pains were strong, but the progress of the child was so slow as to call for the use of forceps, by the aid of which delivery was easily accomplished. Any attempt to reduce the head to a normal presentation in this case he thought would have wrung the child's neck. Another similar case occurred in his practice during the last summer. He waited several hours, and then with great difficulty delivered with forceps. In this case the amount of liquor amnii was small. According to authors, the turn of the child's forehead forwards instead of backward, as in the above cases, is a very rare occurrence.

Dr. Abbot, speaking of the much greater frequency with which he now used forceps than formerly, said that on consulting his notes he found that since 1857 he had employed forceps in 9.4 per cent. of his cases, excluding those of malformed pelvis and consultation cases. From 1841 to 1857 he did not use the instrument once. He had found nothing but good result from their more frequent use.

Dr. Buckingham thought he used forceps in 25 per cent. of his cases taking them as a whole.

SUFFOLK DISTRICT MEDICAL SOCIETY. REPORTED BY J. H. MC'COLLOM, M.D., BOSTON.

THE ANNUAL MEETING of the Suffolk District Medical Society was held Wednesday afternoon, April 3rd, the President, Dr. Lyman, in the chair.

On the recommendation of the Treasurer, in view of a present and prospective increase in the expenses of the Society, it was voted to make an extra assessment of one dollar upon each member, to be collected with the regular annual tax.

Dr. B. Joy Jeffries moved an amendment to the By-Laws of the Society, providing for the holding of the annual and the stated meetings in the evening of the last Saturday in March and September, respectively, instead of the present afternoon arrangement. The subject will be acted upon at a future meeting.

On motion of Dr. Calvin Ellis, it was unanimously voted not to send delegates from this society to the next annual session of the American Medical Association.

The committee appointed at the last regular monthly meeting, to take some action expressive of the sense of the society concerning the death of three of its prominent members and councillors, reported through Dr. H. W. Williams, the chairman, the following resolutions, which, with the accompanying motions, were adopted.

"Resolved, that in the death of Doctor Charles Gordon, we mourn the loss of an associate whose genial disposition, courtesy and ability, had won the attachment of his medical brethren, as well as the affection and confidence of his patients.

"The reliance reposed in his skill and his friendly sympathy, was justified and maintained by his untiring efforts, during a long career, to discharge in their full measure, all obligations of professional duty.

"Resolved, that we sympathize with the community lately deprived of one of its most esteemed members by the death of Doctor James B. Forsyth of Chelsea.

"His modesty, ability and integrity, in all the relations of life, made him an example most worthy of our respect and imitation.

"The regard and confidence with which he was honored by his fellow citizens, was amply deserved;—and he labored for their welfare with the same fidelity, as the kind, sagacious and devoted Physician, and as the unostentatious Chief Magistrate.

"Resolved, that recognizing the bereavement which this society and the community have sustained, in the death of Doctor Samuel Morrill, we desire to record our testimony to the unwearied zeal with which he devoted himself, for more than forty years, to his professional duties; finding his chief pleasure in their faithful discharge; and maintaining, every where and always, among his colleagues as well as with his patients, the reputation of a skilful, judicious and honorable Physician.

"Voted, that these Resolutions be entered upon the Records of the Society, as a tribute of respect to the memory of our departed friends.

"Voted, that the secretary send a copy of the resolutions to the respective families of the deceased."

The following named officers were elected for the ensuing year, 1872–3:—

President.—G. H. Lyman.

Vice-President.—F. Minot.

Secretary.—O. F. Wadsworth.

Treasurer.—A. B. Hall.

Librarian.—B. J. Jeffries.

Commissioner on Trials.—George Hayward.

Committee on Supervision.—George H. Gay, Samuel A. Green.

Committee on Social Meetings.—F. H. Brown, H. I. Bowditch, Calvin Stevens, G. W. Gay, F. B. Greenough.

Councillors.—S. L. Abbott, J. Ayer, H. J. Bigelow, H. I. Bowditch, B. Brown, J. N. Borland, C. E. Buckingham, S. Cabot, Hall Curtis, P. M. Crane, G. Derby, C. Ellis, J. Flint, G. H. Gay, A. B. Hall, G. Hay, D. H. Hayden, G. Hayward, R. M. Hodges, C. D. Homans, Wm. Ingalls, J. B. S. Jackson, J. F. Jarvis, G. S. Jones, J. S. Jones, G. H. Lyman, F. Minot, W. W. Morland, C. G. Putnam, Wm. Read, J. P. Reynolds, G. C. Shattuck, A. D. Sinclair, D. H. Storer, D. McB. Thaxter, C. E. Ware, J. C. White, H. W. Williams.

Censors.— B. Joy Jeffries, J. B. Treadwell, H. F. Damon, J. Homans, A. L. Haskins.

Medical and Surgical Journal.

Boston: Thursday, April 18, 1872.

THE MECHANISM OF THOUGHT.

In a paper contributed to the Royal Medical and Chirurgical Society of London, Dr. Broadbent advances a theory of the mechanism of thought, founded partly on his own researches into the structure of the brain, and partly on the phenomena observed in cases of so-called aphasia; and his views may thus be briefly stated:—In regard to structure, he believes his dissections demonstrate that the radiating fibres issuing from the central ganglia are chiefly, if not exclusively, distributed to the convolutions forming the margin of the great longitudinal fissure and those forming the margin of the fissure of Sylvius, and the parts adjacent both in front and behind; that the fibres of the corpus callosum are distributed to these same convolutions; that there are convolutions, as those on the under surface of the temporo-sphenoid and orbital lobes, island of Reil, and others on the convex surface, which have no direct connection with either crus, central ganglia or corpus callosum; and, lastly, that there are fibres connecting different parts of the cortical grey substance. His theory in regard to the functional activity of these parts is based on that suggested by Dr. Bastian, and may thus be shortly given:—Ideas or thoughts—the act of thinking—are the function of the highest centres, occupying those parts of the cerebral hemisphere which are thus withdrawn from the outer world; when such thoughts or ideas are required to be translated into language, impulses are transmitted through communicating medullary fibres to the third left frontal convolution, where they are formulated into speech, the words being selected that are adapted for the expression of the idea or phrase. But for the articulation of any given word, many muscular groups must be called into play—as those of the chest, larynx, tongue and lips. The coördination of muscles for this purpose is effected by the corpus striatum, in which certain groups of cells representing certain sounds or words exist. The business of the third left frontal convolution is to call into play the right cell groups in the corpus striatum, which shall transmit to the nerve nuclei in the medulla and cord the impulses requisite for the utterance of the words that it has itself selected as most appropriate for the expression of the idea existing in the supreme centres.

It is obvious that this theory enables an explanation of many pathological phenomena. Dr. Broadbent, following Dr. Bastian, holds that there may be either paralysis or merely a want of coördinating power in each of these centres. In the case of the supreme centres, for instance, the lesion may be so serious as to lead to utter loss of the memory of ideas and of words as intellectual symbols, and the patient is then said to be amnesic; or there may be only a want of coördinating—a failure in the capability of selecting the words or phrases required to express a given idea. But the supreme centres may be undisturbed and free from disease, as shown by the retention of memory, and by the power of expressing ideas by some other mode, as by writing, and yet there may be loss or impairment of speech. In such case, the third left frontal convolution is diseased. And here, again, the lesion may be so severe as to abolish its function of selecting words or phrases appropriate to the idea desired to be expressed, and thus produce aphasia; or its coördinating powers may alone be affected, and the impulses it sends down to the corpus striatum may be directed through wrong channels, exciting wrong cell groups, and giving rise to the use of inappropriate words. In cases where the corpus striatum or the motor ganglia in the medulla are affected, aphasia is not present, but there is impairment of articulation. Thus in these several instances we obtain a key to what otherwise are very puzzling groups of symptoms.

Braun's Operation for the Radical Cure of Prolapsus Uterus.—Dr. Paul Munde, of Stuttgart, a graduate of Harvard Medical School, and more recently assistant to Prof. Scanzoni, contributes to the last number (November) of the *Amer. Jour. of Obstetrics* a description in detail of the operation for the permanent relief of prolapsed uterus, as practised by Braun, of Vienna, since 1859, and cites four successful cases. The operation consists in removing a piece of the vaginal portion of the uterus by means of a scalpel, the section being made below a constricting loop of wire passed around the cervix to prevent hæmorrhage; secondly, in uniting the anterior and posterior lips of this wound with sutures similar to catgut; and, thirdly, in removing from the anterior and the posterior aspect of the tumor a portion of the mucous membrane caught up by the forceps and tenacula, leaving an elliptical shaped wound, whose lips are to be brought together as in the first instance. The womb is then restored to its normal relation in the pelvis, and the patient put to bed, with a vaginal tampon of cotton saturated with glycerine.

The recovery is generally unattended by pain or discomfort. At about the fourteenth day the sutures are removed, unless pain or a fœtid vaginal discharge make it necessary before. The patient is able to walk about after a month or six weeks, but a rubber lever pessary is advised to be worn for several months, at the end of which interval the uterus will be found to have resumed its natural condition and position.

The Cæsarean Section in the United States. The *American Journal of Obstetrics* for November 1871, contains a table of all the recorded cases of the Cæsarean operation in this country, with valuable comments thereon, contributed by Dr. R. P. Harris, of Philadelphia. The table presents statistics of fifty-nine operations, embracing a period since 1822, and showing a ratio of maternal recoveries amounting to fifty-two per cent. It is curious to observe that Louisiana contributes nearly one-seventh of the whole number of cases.

The first recorded case in the United States, is that of a girl of fourteen years living in Nassau, N. Y., who opened her own abdomen and recovered from the effects of her ignorant boldness.

Dr. Harris proposes the term, gastro-hysterotomy, in preference to Cæsarean section, as possessing the advantage of greater definiteness. He believes the operation promises a better prognosis than ovariotomy if care be taken to observe ordinary precautions; and he thinks better results are possible from abdominal section in cases of ruptured uterus, than are shown by the ordinary method of delivery *per vias naturales*. The disposition to delay the operation explains much of the want of success, and the necessity for the early determination of the obstacles to natural labor, indicating this or some similar method of relief, and for the prompt performance of the section, once the diagnosis is made, is emphatically insisted on. Many other valuable points of information, including the general statistics of other countries, the condition demanding the operation and the method of its performance are comprised in this highly instructive paper.

The Philadelphia Bogus Diploma Business has received a well-directed blow in the annulling, by the Legislature of Pennsylvania, of the charters of the "Eclectic College of Pennsylvania" and of the "American College" (better known as the "Philadelphia University of Medicine"). Both these institutions had become notorious at home and abroad as dispensers of degrees *in absentia*, and no doubt the illicit and disgraceful traffic in bogus diplomas has been the source of considerable profit. It is creditable to the medical profession in Philadelphia that this action of the State Legislature is largely due to the earnest and continued endeavors of the Faculties of the regular schools to expose the workings of these infamous establishments.

First Annual Report of the Dispensary for Skin Diseases, Philadelphia.—We have received from Dr. Duhring, the eminent dermatologist of Philadelphia, the first report of the Dispensary recently organized in that city. The cities of the Old World have long made diseases of the skin the subject of special study. Blackfriars' Hospital for diseases of the skin alone receives and treats annually an average of ten thousand cases. In Paris, the great hospital St. Louis has six hundred beds for patients of this class, while the dispensary service attached to the hospital prescribes daily for at least one hundred and fifty patients. Vienna, Glasgow, Belfast and other places in the Old World, and New York, Philadelphia, and, we are glad to say, Boston now, all possess hospitals or dispensaries for the treatment and study of cutaneous diseases.

In the Philadelphia Dispensary, 425 patients have been treated in the year just closed, and the percentage of cases cured or relieved speaks well for their professional attendants. We trust that the call made on the benevolent public of Philadelphia for the support of so worthy an institution will be abundantly answered.

The Bath in Smallpox.—In some notes on the treatment of smallpox, in the *Dublin Journal of Medical Science* for January, Dr. Stokes, Regius Professor of Physic in the University of Dublin, lays great stress upon the use of the warm bath. He says: "We cannot doubt that the mortality in smallpox hospitals would be greatly diminished by the use of the bath." He describes a case in which the pustulation was almost universally confluent; the purulent matter highly putrescent; the hæmorrhagic state developed; the body one universal ulcerous sore, and the blackness of the worst purpura developed; the odor of an intensely pungent and offensive character, which seemed to pass through the bystander like a sword. "Stimulants alone, freely and constantly employed, seemed to preserve the patient alive. The pulse was rapid, weak, and intermitting; and for several days we despaired of his life. At this juncture I happened to describe the case to my colleague, Mr. Smyly, who suggested the trial of the warm bath, with the view of relieving the terrible suffering. A bath in which he could recline was speedily procured; and, pillows being adjusted in it, we lifted the sufferer in, and placed him in the recumbent position. The effect was instantaneous and marvellous. The delirium ceased as if by magic; it was the delirium of pain, and the patient exclaimed, 'Thank God! thank God! I am in Heaven! I am in Heaven! Why didn't you do this before?' The fœtor immediately and completely disappeared, so that, on entering the ward, no one could suppose that there was a case of smallpox in it. He was kept at least seven hours in the bath, during which time brandy was freely administered, and omitted only when it showed symptoms of its disagreeing with the brain. He was then removed to bed. The surface was clean, and in many places the sores looked healthy and white. The bath was repeated next day, after which he fell, for the first time, into a tranquil slumber. From this time his recovery was progressive, delayed only by the formation of abscesses and the great soreness of the feet. That this gentleman's life would have been sacrificed but for the timely use of the bath, few who have had any experience in prognosis can reasonably doubt. He was in the condition of a patient every portion of whose skin had been burnt and ulcerated. * * * * This case and its singular result, in addition to the experience of Hebra, justifies the recommendation of the use of the bath. No danger attends its employment; and, in asthenic cases, stimulants can be freely used. In the Vienna Hospital, patients have been kept continuously in the bath for one hundred hours with good effect."—*British Medical Journal.*

In an article in the last number of the *Gazette Hebdomadaire*, M. Viennois gives an interesting account of the "Isolating Dressing of Wounds" as pursued by M. Ollier, of Lyons. He observes that among the various modes of effecting this manner of dressing of late years, that of Lister has excited most attention; but his is so long and complicated that the omission of some detail may easily prevent its succeeding. For this reason M. Ollier has, during the last two years, treated wounds by means of *oil-baths*; and, where these could not be applied, by keeping the wound and the limb surrounded by dressings constantly soaked in oil—in fact, a continuous oily irrigation. For the continuous water-baths employed by Langenbeck, Valette, and others, M. Ollier believes that oil constitutes a preferable material, as, being lighter than the fluid products of the wound, all putrefied or putrescent matters sink through it to the bottom of the vessel. They no longer remain in contact with the wound, and by traversing a carbolized layer of the oil become disinfected and innocuous during their passage. However abundant such products are, they are removed from the wound by means of the oil, which also forms an efficient protection against the access of the air to the wound. Moreover, the oil is not like water—absorbable by the wound—and thus isolates it without furnishing it with any septic elements. It is sufficiently transparent to render it unnecessary to remove the limb from the bath in order to watch the progress of the wound. The oil may be rendered antiseptic by adding about 50 per cent. of phenic acid. After trying various forms of apparatus, M. Ollier now uses zinc vessels approaching in shape to the limbs which are to be immersed in them during the period of treatment. For amputations of the arm or leg, he employs a yet simpler plan, taking a pig's bladder of sufficient capacity to embrace the stump, and, having filled it with oil, fixing it above the knee or above the shoulder, as the case may be. The stump is thus kept in a continuous bath of oil, which furnishes it with a soft cushion, and may require renewal every three or four days, according to whether the adjustment becomes disturbed or not. When the bath cannot be applied, a layer first of charpie and then of wadding is wound round the limb, and thoroughly saturated with oil, which is also kept frequently, or even continuously, applied.—*London Med. Times and Gazette.*

The Local Treatment of Hypertrophied Tonsils.—Dr. B. Frankel read before the Berlin Medical Association (*Wiener Medisinische Presse*, February 11, 1872) an interesting communication on this subject. He said that in cases in which, from any cause, it was inexpedient to remove the tonsils by the knife, we must have recourse to one of two classes of remedies. 1. Caustics. Of these, he agrees with Prof. Lewin in preferring chromic acid. This should be applied in fine crystals (*Nadeln*) directly to the tonsils. Its application gives rise to little or no pain, is without danger, and produces a considerable reduction in the size of the glands. If great care is not taken, the surface of the tonsils will, however, acquire a lobulated appearance, inasmuch as those parts which have not been reached by the caustic will be unchanged and appear as ridges among the shrivelled portions. Dr. Frankel has, consequently, recourse to—2. Sorbefacients. He has found but little effect produced either by the application of the tincture of iodine by means of a camel's-hair brush directly to the part, or by the use of a solution of iodide of potassium and the atomizer, and therefore recommends that the iodine should be brought immediately in contact with the hyperplastic tissue. To this end he has made use of submucous injection of iodine, which he has never found to fail in appropriate cases. He prefers the solution of iodine in glycerine, as the alcohol in the tincture has a tendency to dissolve the cement with which the glass point of the syringe is fastened to the caoutchouc cylinder. The injection should be made in the following way: The tongue of the patient is to be depressed with a spatula, which should be held in the left hand of the operator, while with the right hand he introduces the point of the syringe into the tissue of the tonsil. So much of the contents of the syringe are then to be injected as may seem desirable. No pain is caused during the injection or afterwards, unless the instrument has penetrated into the surrounding muscular tissue. There is generally little or no hæmorrhage. Care should be taken that the point of the syringe does not enter one of the numerous crypts of the tonsils. This may be known to have taken place whenever the iodine-solution is seen flowing out of the mouth of such a follicle. The injection may be repeated at the end of eight days.

A marked diminution in the size of the tonsil will frequently be observed after the first operation; but to arrive at definite results—*i.e.* to reduce the gland to the third or the fourth of its original size—it is sometimes necessary to repeat it from twenty to thirty times.

In some cases he also recommends the introduction of small pencils of iodine and iodide of potassium, made up with dextrin, into the mouths of the follicles of the tonsils.

In the discussion which followed the reading of this paper, Prof. Lewin spoke of the great relief afforded by the submucous injection of morphia in acute tonsillitis. The pain is at once relieved by it, and deglutition becomes possible.—*Phil. Medical Times.*

Treatment of Tertiary Syphilis. — Dr. M. H. Henry thus refers to the use of iodide of potassium in the tertiary stage of syphilis :—

"To derive the full benefit of the iodide where there is a large amount of gummy deposit, or any of the inveterate and intractable forms of the disease in the tertiary period, it must be given in large doses —indeed, I scarcely know the limit. Little fear need be entertained about producing iodism. I have never seen it in a person suffering from tertiary syphilis. In one case the patient took three hundred grains daily for more than eight weeks, and with the disappearance of the syphilitic symptoms, he gained steadily in his general health and in flesh. To obtain the best results in the use of the iodide, it should be taken thoroughly diluted—each dose in a small glass of water. If there is any nausea, a little compound tincture of bark, or an infusion of columbo, may be added. The drug is more readily and perfectly absorbed when taken in this way than when taken with only a small quantity of fluid." —*The American Journal of Syphilography and Dermatology.*

The Force of Uterine Contraction.—The extreme force of uterine contraction produces a pressure of 3,402 pounds per square inch, which is equivalent to a pressure of 54,106 pounds acting upon a circle of nine and a half inches in diameter, which is assumed as the average area of the pelvic canal. The maximum force used to expel the fœtus, by both uterine and abdominal muscles combined, is estimated by Soulin, by forceps experiments made on a dead body, at 110.23 pounds, a result which is regarded by Dr. Duncan as too large. Dr. Duncan considers 80 pounds as the maximum force ever employed in difficult cases. This would correspond with a hydrostatical pressure inside the uterus of 5.05 pounds per square inch, which is greater than the uterine muscles, unaided, are capable of producing.—*Dublin Quarterly Journal Medical Sciences.*

Antidote to Carbolic Acid.—Dr. T. Hasemann, from numerous careful experiments, both chemical and medicinal, advocates the use of a strong solution of saccharate of lime, of course to be taken as soon as possible, as an antidote to carbolic acid.—*Medical News and Library.*

Medical Miscellany.

Alcohol as a Medicine.—In view of the difficulty experienced in procuring pure alcoholic liquors and for the purpose of studying the essential effects of alcohol administered medicinally, Dr. Samuel Wilks, of Guy's Hospital, has prescribed what he calls "mistura alcoholica," composed of rectified spirit, tincture of cardamoms and water. This mixture fulfils the indications for alcoholic stimulation in many cases of wasting diseases, and the results of its use in children especially have been very encouraging.

Trained Midwives.—The Obstetrical Society of London has undertaken to correct some of the abuses growing out of the ignorance of midwives by giving licenses to those who, upon examination, prove themselves capable to undertake certain cases of labor and who furnish evidence of having had a sufficient term of elementary study.

The Walls of Hospital Wards.—In view of the necessity of providing the walls of hospital wards with some material impermeable to fluids and gases, the source of gangrene, erysipelas and other contagious diseases, the best London hospitals of late construction made use of parian. This substance, expensive as it is, appears to be open to other criticism as not fulfilling the purpose intended, and it is proposed to supplant it with ordinary paint and varnish in thickly applied layers.

Turpentine in Peritonitis.—At a recent meeting of the Paris Hospital Medical Society, M. Vidal called attention to the great value of turpentine as an external application in partial and general and even in puerperal peritonitis. Trousseau employed the same remedy in large doses internally. M. Vidal soaks a piece of flannel in the turpentine and applies it to the abdomen, covering it with oiled silk; it remains on until vesication results at several points, when the silk is removed to allow the evaporation of the turpentine. A portion of the agent is believed to be absorbed. Ice, and in certain cases, also, leeches are used. Under this treatment, M. Vidal had seen many cases recover, in which the patient was reduced to the last extremity.

Baby Farms.—The existence of a "baby-farm" was discovered a few days ago in Marseilles by a novel species of detection. A mastiff was seen carrying the arm of a newly-born infant in his mouth, and his movements being watched, led to the arrest of a woman who confesses to have exercised this calling for thirty years.

Function of the Anterior Part of the Brain.—Prof. Schiff, of Florence (*Lancet*, Oct. 21, 1871), is said to have confirmed the announcement that the anterior portion of the brain has to do with motion; but he has found that the muscular movements do not arise from an actual motor property of the brain, but are reflex movements excited by irritation of certain parts of the cerebrum which regulate tactile sensibility (not sensitiveness to pain). The removal of such parts does not *directly* abolish the movements, but disturbs them indirectly through the destruction of tactile sensibility.—*N. Y. Med. Jour.*

Eight thousand deaths from smallpox occurred in London last year, while the average of the preceding thirty-one years was only six hundred.—*Phil. Med. and Surg. Reporter.*

To Correspondents.—Communications accepted:—Vaccination without Scar; Scar not a Test of Thoroughness or Immunity.—Two Cases of Compound Fracture of the Leg.—Mortality Statistics of the Learned Professions.—Cases of Fractured Cranium.

Books Received.—How the World was Peopled. Ethnological Lectures by Rev. Edward Fontaine. New York: D. Appleton & Co. 1872. Pp. 341. (From A. Williams & Co.)—The Popular Science Monthly, conducted by E. L. Youmans. No. I. New York: D. Appleton & Co. 1872. Pp. 128.—The Urine and its Derangements. By George Harley, M.D., F.R.S. Philadelphia: Lindsay & Blakiston. 1872. Pp. 334. (From James Campbell.)

Married,—In this city, 12th inst., Wm. H. Ruddick, M.D., to Miss S. Ada Means, both of this city.—In Hartford, Conn., April 11th, Dr. Francis M. Weld, of New York, to Miss Fannie E. Bartholomew, of H.

Deaths in seventeen Cities and Towns of Massachusetts for the week ending April 13, 1872.

Cities and Towns.	*No. of Deaths.*
Boston	149
Charlestown	5
Worcester	35
Lowell	17
Milford	7
Chelsea	4
Cambridge	17
Salem	17
Lawrence	15
Springfield	5
Lynn	9
Gloucester	7
Fitchburg	4
Newburyport	6
Somerville	5
Fall River	17
Haverhill	3
	322

Prevalent Diseases.	
Pneumonia	46
Consumption	41
Scarlet fever	23
Erysipelas	7
Croup and Diphtheria	7
Typhoid Fever	5
Measles	4

There were five deaths from smallpox; four in Boston and one in Fitchburg.

George Derby, M.D.,
Secretary of State Board of Health.

Deaths in Boston for the week ending Saturday, April 13th, 149. Males, 76; females, 73. Accident, 4—inflammation of the bowels, 2—disease of the bowels, 1—burned, 1—bronchitis, 5—inflammation of the brain, 1—congestion of the brain, 2—disease of the brain, 6—cynanche tonsillaris, 1—cancer, 4—caries of bones of foot, 1—cyanosis, 2—consumption, 17—convulsions, 1—croup, 2—debility, 2—diarrhœa, 1—dropsy, 1—dropsy of the brain, 3—drowned, 1—diphtheria, 1—epilepsy, 1—erysipelas, 5—scarlet fever, 8—typhoid fever, 1—gastritis, 3—disease of the heart, 7—insanity, 1—intemperance, 2—disease of the kidneys, 3—disease of the liver, 2—congestion of the lungs, 2—inflammation of the lungs, 17—marasmus, 7—measles, 1—old age, 8—paralysis, 1—pleurisy, 1—premature birth, 5—peritonitis, 1—purpura, 1—puerperal disease, 3—scalded, 2—suicide, 1—smallpox, 4—disease of the stomach, 1—ulceration of the stomach, 1—unknown, 6.

Under 5 years of age, 54—between 5 and 20 years, 12—between 20 and 40 years, 29—between 40 and 60 years, 25—above 60 years, 29. Born in the United States, 108—Ireland, 27—other places, 14.

THE

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Original Communications.

VACCINATION WITHOUT SCAR;

Scar not a Test of Thoroughness or of Immunity.

Read before the Boston Society for Medical Improvement, Jan. 22d, 1872, by B. E. Cotting, M.D., Associate Member.

In the spring of 1867 (see Boston Medical and Surgical Journal, Aug. 29th, 1867), I read a paper to this Society, the object of which was, in part, to show that thoroughness of vaccination, and the protection afforded by it, depended upon an essential change wrought in the system by the disease; that this change could not be correctly estimated, nor with any exactness, by the size, peculiarities, and other appearances, or number, of the scars; and that, on observed and philosophical grounds, the then apparently prevalent belief in such a test was only a popular error.

As these propositions were somewhat strenuously contested by some members, an opportunity has been sought for ever since to demonstrate them.[*] At length, after much effort, many disappointments, and the assumption of considerable personal responsibility, such an opportunity has been secured; and the results are sufficiently decisive, it would seem, to remove all doubt in the matter. Although the erroneous idea appears to have been given up pretty generally hereabouts, and, in the present vaccine panic, seems to be wholly abandoned in practice by its former advocates, it is worth while that the question should be settled once for all if possible. If a single case can be found of thorough vaccination with complete immunity without any scar at all, then, however valuable as a proof of previous vaccine disease, the necessity of a scar of particular form and peculiarities to secure thoroughness or immunity is no longer tenable, and the doctrine of such a test must be abandoned.[*] Such a case we now have through an experiment devised by myself, and faithfully carried out in its details by Dr. J. Henry Davenport, of this city. I give the account in his own words:—

"The following is a history of the experiment I have performed at your suggestion.

"Nov. 21st, 1871.—*x*, aged about 12 years, a healthy and hearty boy who had never been vaccinated, was obtained for the proposed trial.

"A drop or more of pure virus, from a boy 14 years old on the 8th day of normal vaccinia, was drawn into the long needle-pipe (about two inches long) of an ordinary subcutaneous syringe, which had been tried previously with another drop and its trustiness proved. The outside of the needle was then cleaned with an aqueous solution of carbolic acid (one part to twenty), and carefully washed and wiped off, in order to free it from any virus that might possibly adhere to the outside. The needle, thus cleaned and containing a drop or more of pure virus inside, was passed with an upward direction its full length under the cutis in front of the biceps of the left arm—so that the point of deposit should be as far as possible from the puncture. When thus well imbedded in the areolar tissue only, its contents were discharged. After this, the needle, lying flat under the skin, was turned round over a considerable angle and moved about so as to secure a thorough subcutaneous wiping of the point, and then rapidly withdrawn. No blood followed; and the prick was to be seen only with difficulty.

"Nov. 22d, 2d day.—A slight deep-seated hardness at the point of deposit about the size of a bean, such as follows most

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[*] "*Cui Bono?*"
Truth is weakened by any addition of error.
"Truth will always be more confirmed and extended by a conscientious indication of those points which are hypothetical."—Fleuchtersleben, *Med. Psych.*

[*] . . . "A miserable, flat, white speck or two, which no medical man who knows anything of smallpox can regard as protective."—*London Med. Times and Gazette*, February, 1867.
" . . . Unless the characteristic mark of primary vaccination be distinct and satisfactory, it is prudent," &c.—*Circular of York and Lincoln Branch of British Medical Association.—British Medical Journal*, March, 1872.

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subcutaneous injections of medicine. No indications of inflammation.

"Nov. 23d, 3d day.—Same as yesterday.

"Nov. 24th, 4th day—No increased swelling. No tenderness in axilla. No loss of appetite. No symptoms of constitutional disturbance.

"Nov. 25th, 5th day.—Swelling (lump rather) is smaller.

"Nov. 26th and 27th.—No change.

"Nov. 28th.—Complains of itching.

"Nov. 29th, 9th day.—Swelling enlarging. The immediate neighborhood very slightly reddened. The blush extends over a space a little larger than a silver dollar.

"Nov. 30th, 10th day.—Swelling as large as a small horse-chestnut; seems deep seated and imperfectly connected with the skin, which is suffused with a blush about three inches long by two wide. Axilla tender. Tongue shows a thin white fur.

"Dec 1st, 11th day.—Did not sleep well last night. Had headache. Was feverish. Pulse accelerated.

"Dec. 2d, 12th day.—Swelling decreasing. Blush scarcely to be seen. Constitutional symptoms have all greatly abated.

"Dec. 3d, 13th day.—Same as yesterday.

"Dec. 5th, 15th day.—Swelling smaller. Feels soft. Pus was feared to be forming—none formed however.

"Dec. 8th, 18th day.—No material change.

"Dec. 10th, 20th day.—Swelling almost entirely disappeared. *Arm shows no sign whatever of any scar.* Any experienced person would suppose that the boy had never been vaccinated.

"Dec. 30th, 40 days after vaccine injection, *x* was thoroughly re-vaccinated, and a drop of clear virus put into and allowed to dry in some fresh scratches made by a lancet.

"Jan. 1st, 3d day.—No swelling or itching. The wounds look like any similar cuts a day or two old.

"Jan. 2d.—No change; Jan. 6th, 8th, the same.

"Jan. 11th, 13th day.—Not taken.

["Jan. 25th, 27th day after re-vaccination, *x* was again re-vaccinated.

"Jan. 27th, 3d day.—Some itching and redness—a sore.

"Jan. 28th, 4th day.—Redness a quarter of an inch in diameter.

"Jan. 29th, 5th day.—No swelling in axilla, nor other constitutional symptoms.

"Jan. 30th, 6th day.—Redness and sore gone.]

It will be seen by this case that, after injection of the virus beneath the true skin, the vaccine disease progressed as regularly as when introduced in the ordinary way. On the 9th, 10th, and 11th days, there were the areola, swellings, and constitutional symptoms in due order. At one time, especially on the 15th day, there seemed to be some fluid present—as though there had been a subcutaneous vesicle, passing through the purulent stages. By the 20th day, the disease had completed its "series of processes;" but left *no scar*, nor trace behind.

That there was complete immunity against subsequent vaccine disease was clearly shown by the thorough re-vaccination twenty days afterwards, or forty days after the first subcutaneous vaccinal puncture.

[Since this paper was read to the Society, a second re-vaccination, twenty-seventh day after the first, having the usual appearances of ordinary re-vaccination, pustule, redness, &c., without "taking," gave additional confirmation of the thoroughness and immunity of the primary subcutaneous *scarless* vaccination.]

Variolous inoculation, "the only proper test," according to a Report of the British Provincial Association, though suggested, was not to be allowed in this case.

In the paper of 1867, it was shown that whether the scar resulting from vaccination as usually performed be large or small is an incidental circumstance merely, dependent upon the amount of cutis destroyed by ulcerative processes not essentially peculiar to vaccine disease; and now, by the experiment just described, we have a complete demonstration that a scar is not absolutely necessary to perfect vaccine disease or its protective power.

Two other persons were vaccinated subcutaneously, but were afterwards found unsuitable for full experiment, though the results are not without interest. To continue Dr. Davenport's account:—

"Dec. 8th.—*y*, aged 33, vaccinated subcutaneously as before described.

"Dec. 11th, 4th day.—Swelling of the size of a small filbert, deep and under the skin. No tenderness in axilla. Arm itches a little. No redness or other symptoms.

"Dec. 13th, 6th day.—Swelling subsiding.

"Dec. 15th, 8th day.—No appearances. Now states that when she said that she had not been vaccinated, she meant during the present epidemic!

"Dec. 30th.—*z*, aged 12 years, vaccinated subcutaneously.

"Jan. 8th.—No appearances. Now admits a mistake, and says that he was vaccinated several years ago."

In both these cases there was nothing to be seen subsequently, save the minutest point where the needle penetrated. It was ascertained, later, that both had been properly vaccinated, though the marks now pointed out are equivocal. These cases show, however, that subcutaneous re-vaccinations may not be unlike many other re-vaccinations performed in the usual way, in general nugatory features and results; and are recorded here chiefly to show this, and the comparative harmlessness of the subcutaneous operation. The last was not so clear previous to the trial, and the responsibility, in case of untoward event, had to be fully assumed at the outset.

It is certain, however, that in the first case the boy x had never been vaccinated previous to our experiment. To his case, therefore, no exceptions can be taken.

These are the only instances where subcutaneous vaccination has as yet been permitted; but now that it has proved to be unattended by disagreeable results, the experiment can be repeated, without risk, by others who may incline to try it for additional confirmation of the fact now established.

EPILEPSY FOLLOWING INJURY TO THE HEAD.

Read at a Meeting of the Suffolk District Medical Society. By I. H. HAZLETON, M.D., Boston.

ON the evening of Friday, Sept. 8th, in New York city, ——, a young man 22 years of age, weighing about one hundred and forty pounds, fell upon the floor, from a height of nine feet, striking upon the back and left side of his head. He was insensible over twenty minutes. Vomited on recovering consciousness; body cold; pulse, about an hour after, 32 There was no paralysis, nor trouble with any of the special senses. There was a large ecchymosis over the left mastoid process, without any signs of fracture of the bones of the head. In a fortnight, he had so far recovered as to return to his store, gradually resuming work, and feeling about as well as ever.

About the 10th of October, he began to have a cough without any expectoration, loss of appetite, night sweats, vertigo, and pain in the head, which he thought was occasioned by the severity of his cough. When in bed, was not troubled with vertigo, and cough was less severe. His stomach could not tolerate much food. There was a slow but steady progress in the severity of his symptoms.

I saw him Sunday morning, Oct. 22. He was in bed, a little emaciated, eyes lustrous, pulse 88 and soft; tongue moist and clean; bowels regular. He complained of cough and of being light-headed. Could only eat simple food. The cough was dry, frequent and paroxysmal. Could not detect any physical signs of lung trouble. He said that the night sweats varied in quantity. As he was unwilling to go to any of the hospitals, and could not receive proper attention at his boarding-place, he concluded to come to my house for treatment. We left New York Oct. 24th in one of the Fall River boats. He remained in his room till we took the cars. Was but very little fatigued by the journey, and appeared better the next day, but was advised to keep his room. The syrup of iron, quinia, and strychnia, one teaspoonful twice a day was prescribed.

On Saturday, Oct. 28th, he began to be dull and depressed. In the afternoon, his face was flushed; head hot; pulse 96, full and bounding; tongue clean, but less moist. There was perceptible throbbing of carotids. Said that his head did not ache. Discontinued the syrup, and gave simple fever drops. At 11.30, P.M., went into his room and found him unconscious, on his left side, with the left arm extended, hand clinched, head drawn to the left, eyes rolled up and drawn to the left. There were slight convulsive movements of the right side. In a few minutes the whole body was convulsed, the right side more than the left. The pupils were widely dilated. There was the same turning towards the left. No protrusion of the tongue. No involuntary discharge of urine or fæces. Near the end of the attack, there was twitching of the face, which continued some time after the other convulsive movements had ceased. From the commencement of the attack till after all spasmodic action had disappeared was about fifteen minutes. The body was bathed in perspiration. He then went into a deep sleep. Twenty minutes after, he had another seizure of the same character, but much less severe, and of shorter duration. Gave a solution of bromide of sodium (gr. x.) twice during the night.

When he awoke in the morning, he said he had had another one of his night sweats, and thought it was worse than any of the others. At stool he was much amused by the twitching of his left leg. Solution of bromide of sodium (gr. v.) four times a day was ordered. The next day, noticed that he used left arm but very little, and was more or less helpless, and found that both the arm and leg of the left side were paralyzed—the arm more than the leg. Sensibility was much diminished, equally on both sides. The temperature was not taken, but appeared, by hand, to be a little more elevated upon the left side than upon right. The cough was unchanged, but continued to give him much uneasiness.

Nov. 2d, at 4.30, A.M., while asleep, with no premonitory cry, he had slight clonic spasms of the left side (the body being turned as in previous attack). They did not follow as rapidly and lasted nearly ten minutes, gradually involving both sides, but the right side more than the left. Unconscious during both of these stages, which continued nearly twenty-five minutes. About five minutes after, the respiratory muscles were convulsed, making respiration nearly one hundred per minute. This third stage lasted a little over ten minutes, during the whole of which he was conscious, begging me to " give him something to relieve him or he would die." Gave him twenty-five grains of bromide of sodium after the spasms began to be less severe. The whole attack lasted about fifty minutes.

A blister was applied to the back of the neck, and solution of bromide of sodium (gr. xx.) pro re nata (the indications being the rapidity of the pulse, and the increased temperature) was ordered, the head being kept cool by evaporating lotion. In the evening, had an attack of twitching of the paralyzed side, much less severe than the one in morning; was unconscious during the whole of the fit. There was less perspiration, although large in quantity. When he awoke, he asked if he had not been having another spell like the one in the morning, and if his night sweats had not been all along occasioned by fits. The paralysis was more complete after this attack. The cough unchanged, causing great pain in head.

Nov. 4th.—Dr. Webber saw him in consultation. The paralysis had so far improved that he was able to flex the forearm and fingers a very little, but could not extend them. The left hand was slightly œdematous, possibly from dependent position. Could bend the leg a little. There was no facial paralysis. The pupils were normal, responding to the stimulus of light, a little sluggishly, however. The tongue was protruded and drawn in, sometimes in a straight line, and sometimes not. When protruded, there was slight trembling. It seemed to be a little full on the right side. He has good control over the muscles of deglutition. There was a slight secretion from the eyes. Of the five special senses, that of touch seemed to be the only one affected. There was a marked loss of sensibility on both sides. He could distinguish a touch or pinch, but thought we were pulling hairs when using the æsthesiometer with some little force. The two points were felt as one at a distance of two and a half inches across the arm. All mental phenomena were sluggish, but normal. The solution of bromide of sodium to fluid extract of ergot (♏ xx.). After the administration of the first dose, an erythematous blush began to appear upon the face. Soon after the second dose he vomited. The ergot was discontinued, and the solution of bromide of sodium was resumed.

Nov. 5th.—Began to be troubled with severe tonsillitis, with strawberry-looking tongue. In the evening, had epistaxis from the left nostril. There was a slight diarrhœa, which lasted for five days. The appetite and strength began to fail. Slept a great deal, talking often in his sleep.

Nov. 9th.—Had hallucinations of sight after awaking, but could correct the false perception. Slept most all day, breathing heavily. Tonsillitis almost well. Cough still present, not so troublesome as formerly.

Nov. 11th.—His left arm was flexed. On attempting to straighten it, he cried out that it hurt him. His condition would fluctuate from comfortable—with good pulse, quiet sleep, and no hallucinations—to quite low, when the pulse would be small and very rapid, the sleep heavy, free perspiration, the hallucinations frequent and a longer time elapsing before they were corrected.

Nov. 22d.—Incontinence of urine, when asleep, appeared and continued for three or four days. Always dreamed he was on board a yacht and was wet by the spray.

Dec. 2d.—The pulse was small and 120. Only a slight cough. No profuse sweating. After unpleasant dreams he would try to get out of bed, but a solution of hydrate of chloral (gr. x.) would quiet him in a few minutes. Milk punch (whiskey ℥ss.) was administered four times during the day, and the pulse was found to be less frequent. Continued treatment through the night and for three days after, gradually decreasing the quantity of whiskey as the pulse improved, till the fifth day, when it was discontinued. He improved slowly from this time, recovering the use of the left arm and leg; sensibility returned on both sides. On January 25th, 1872, the day he left me, the index of the dynamometer marked 80°

when the right hand was used; 63°, when the left.

The mental phenomena during his illness were very interesting. Until after the severe convulsions of Oct. 28th, the mind was unaffected; then a little more time was required for him to collect his thoughts and answer. But his answers were always correct. He gave the number of his Post Office box in New York when he appeared to be quite stupid. At one time I believed it was almost impossible for him to live, and requested him to sign some checks, payable to his only sister, for the whole of the money he had deposited in different banks. He seemed to understand why I desired this, consented, and laughed when he found he was no longer able to write, but had to make his mark.

After Nov. 9th the hallucinations of sight became more frequent, but always after awaking from sleep. When awake for any length of time, nothing but sluggish mental action was noticeable. After sleep, however, and whilst awaking, he would have hallucinations of sight, hearing and touch, and delusion later on. All of these he could correct with the assistance of his nurse. The moment his mind was drawn to any other subject for a short time, he was able to correct his delusions. After he was able to walk out, he had a faint remembrance of two or three things only that occurred subsequent to Nov. 2d. When the money orders were handed to him he was much astonished, remembering nothing about them. It is very interesting to the medical jurist to note that the memory was so little impaired during the progress of the disease; that he seemed to understand everything that was said to him, and could also converse correctly, but forgot everything that happened after he had recovered.

HYDRATE OF CHLORAL IN RIGID OS-UTERI IN A CASE OF MISCARRIAGE.

By M. L. Brown, M.D., Winchendon.

Mrs. ——, a well-formed and muscular woman, primipara, miscarried at about the fourth month. I was called at 4 o'clock, A.M. The miscarriage had been in progress for three days and the waters had passed away the day before. On examination, the vagina was found hot, though somewhat moist, and the os was too small to admit the tip of the fore-finger; it felt hard, and gave a sensation as if bound round with whip-cord. At the end of two hours, the pains coming regularly and increasing in strength, another examination was made, when I found the same condition as at first. At 8.30, A.M., no progress having been made, I gave one-third of a grain of sulph. morphia, as in labor at full term; I have several times seen the best results from giving an opiate when the pains were strong and the os rigid and unyielding. At 11, A.M., there was no change, all the while the pains occurring regularly every five minutes. I then gave two grains of opium, but with no effect towards dilating the os, though it materially increased the strength of the pains. At 1.30, P.M., applied the extract of belladonna after the manner of Prof. P. Dubois (a pellet of the extract the size of a pea on the nail of the index finger is carried to and applied upon the os uteri). Towards evening, as this had produced no result, several applications of very warm water were made, by means of vaginal douches, with the effect to soften and cause the os to dilate so as to admit the finger. After this, no perceptible progress was made, and I thought of incising the os. The pains had become more frequent, powerful, and were agonizing, and the patient complained of great fatigue, a feeling of complete exhaustion, was very thirsty, had severe headache, the tongue was dry, brown and burning, the abdomen was tender on pressure, and the pulse was hard and frequent.

Having some hydrate of chloral at hand, I gave her forty grains in half a glass of sweetened water; very soon after, she passed into a quiet and refreshing sleep. Slept an hour and a half, when she awoke, and immediately after it was discovered that the fœtus was in the bed; slight traction was made upon the slender cord and the placenta was drawn from the vagina. The uterus was found firmly contracted; the tongue was moist, and the headache was gone. The patient made a very quick and perfect recovery.

Reports of Medical Societies.

RHODE ISLAND MEDICAL SOCIETY.

The quarterly meeting of the Rhode Island Medical Society was held March 20th, in the Franklin Society rooms, on North Main Street, and was quite largely attended.

Dr. Geo. L. Collins, President, occupied the chair, and called the meeting to order at 11 o'clock.

Dr. O. C. Wiggin, delegate elect to Vermont Medical Society, was changed to New Hampshire, and Dr. O'Leary appointed to Vermont.

Dr. C. W. Parsons, corresponding secretary, read the following resolutions from the "Association of Medical Superintendents of American Institutions for the Insane," and after a few favorable remarks from Dr. Sawyer, Superintendent of Butler Insane Asylum, the resolutions were adopted, on motion of Dr. J. H. Eldridge, of East Greenwich:—

Resolved, That in view of the frequency of mental disorders among all classes and descriptions of people, and in recognition of the fact that the first care of nearly all these cases necessarily devolves upon physicians engaged in general practice, and this at a period when sound views of the disease and judicious modes of treatment are specially important, it is the unanimous opinion of this association that in every school conferring medical degrees, there should be delivered, by competent professors, a complete course of lectures on insanity and on medical jurisprudence, as connected with disorders of the mind.

Resolved, That these courses of lectures should be delivered before all the students attending these schools; and that no one should be allowed to graduate without as thorough an examination on these subjects as on the other branches taught in the schools.

Resolved, That in connection with these lectures, whenever practicable, there should be clinical instruction, so arranged that, while giving the student practical illustrations of the different forms of insanity, and effects of treatment, it should in no way be detrimental to the patients.

Resolved, That a copy of these resolutions be sent by the Secretary to the American Medical Association, the Dominion Association and Ontario Association, of Canada, to each State Medical Society, and each Medical College in the United States and British Provinces.

John Carwen,
Sec. Assoc. of Medical Superintendents of American Institutions for the Insane.

The President announced the receipt of several pamphlets containing directions for vaccination, also copies of the report of the case of the American Medical Association against H. A. Martin, M.D., of Boston, sent by Dr. Martin for distribution among the members of the Society.

On motion, the President appointed Drs. Mann, Morton and Parsons a committee to nomimate delegates to the annual meeting of the American Medical Association, to be held in Philadelphia the first Tuesday in May.

Dr. W. O. Brown, of Providence, next read a paper on the subject of "Certain Vaguely Defined Uterine Affections," detailing some interesting cases occurring in his own practice.

Dr. C. T. Gardner, of Providence, then read a paper on the subject of some of the needed reforms in medical societies, the appointment of coroners, and the examination of experts in courts of law. The paper was an ably written one, and was received with applause at its close. The paper was afterwards discussed by Drs. Brown and Gardner.

Dr. A. R. Becker spoke on Dr. Brown's paper, differing with the author in some of his positions, and the matter was also discussed by Drs. Gardner, Becker, Wiggin and others.

Dr. Becker called attention of the Society to the "Bromide of Calcium," which he had used in his practice very successfully as a hypnotic, and described cases in which he had given it with great benefit.

Dr. Sawyer said he also had used it at the Butler Asylum beneficially, but not a sufficiently long time to report satisfactorily upon its use.

The following named members were elected as delegates to the American Medical Association—:

Drs. Collins, Sawyer, Becker, W. H. Traver, Providence; Morton, Pawtucket; King, Newport; Bullock, Warren; Kenyon, Coventry; Gavin, Lonsdale; Edwards, Woonsocket.

Dr. O. C. Wiggin, of Providence, presented a case of perforation of the stomach by ulceration, illustrated by a well-preserved specimen of the diseased stomach, with an interesting account of the progress of the case, which occurred in his practice.

Dr. J. H. Eldredge, of East Greenwich, read an able paper on the subject of "Placenta Prævia, or unavoidable Uterine Hæmorrhage." After a general presentation of the subject, Dr. E. gave full and detailed reports of seven cases which had occurred in his practice during the past fifteen years.

Dr. Timothy Newell, of Providence, introduced a female patient of his, suffering with a pulsating tumor on the right side of the neck, and her case was examined with the stethoscope by most of the physicians present.

The Committee on Publications were instructed to print as many copies as they may deem advisable of the proceedings of the Society; also of a condensed report of the transactions since 1864; biographical sketches of members deceased since that time, and of the medical papers which have been read at meetings of the Society.

Dr. F. H. Peckham, Jr., of Providence, presented the following resolution, which was read and passed:—

Resolved, That a Committee of three be appointed by the President to examine and report upon the expediency of applying to the General Assembly for an amendment to the laws in regard to the appointment of coroners.

Dr. W. O. Brown, of Providence, described his method of preparing vaccine virus for vaccination, by pulverizing the crust from the pustule and dissolving it in glycerine and water, using it with good effect. Dr. Collins differed with him, and preferred in all cases to use the pure lymph from the pustule.

The meeting was then adjourned until Wednesday, June 12th, the time of the annual meeting, at the same place.

LYNN MEDICAL SOCIETY. J. O. WEBSTER, M.D., SECRETARY.

Dec. 6th, 1871.—Dr. Galloupe reported several cases.

1st. *Operation for Harelip* in a child less than three days old; the worst case of single harelip he had ever seen. The child was fed with mother's milk, which was drawn with a pump. Pins removed in forty-eight hours; wound dressed with lint dipped in collodion, which was not well kept on, but the result was perfect. Dr. G. has notes of twenty cases operated on from three days to one year of age, and does not see that age influences the result.

2d. Two cases of *Paralysis of Musculo-spiral Nerve* after fracture of humerus. In each there was complete paralysis of extensors and supinators of hand, persisting for six months.

3d. *Compound Fracture of Radius into Elbow-joint.*—Case of an intemperate man who had a load of stone, of four tons' weight, pass over his elbow, fracturing the radius and opening the joint. No splints could be applied; still he got well in about three weeks and has a good arm, with perfect use of elbow-joint. Carbolic-oil dressing. Dr. G. thought that drunkenness sometimes seems to have little effect on the repair of injuries. He had a fracture of femur in a drunkard, followed by delirium tremens for five weeks, still there was good union.

Dr. Breed suggested that intemperate habits have little effect, in this respect, on those who lead out-of-door lives.

Triplets.—Dr. Drew reported a case of triplets at 6½ months. All presented in first position of head. Interval from first to second, twenty minutes; second to third, thirty minutes. All lived about twenty-four hours. Placenta single and very large.

Croup; Tracheotomy.—Dr. Cahill reported, in detail, a case of croup in a little girl of three years. After various treatment with no avail, the patient being nearly suffocated, and, in his opinion, not likely to live for two hours, he proposed tracheotomy, which was assented to. He etherized the patient, cut down on the trachea slowly and carefully, hooked it up and divided three rings, and introduced a gutta-percha tube. The patient, after a short struggle, breathed as though nothing was the matter, drank a glass of milk, and immediately went to sleep for the rest of the night. The patient seemed to be doing well for thirty-six hours, then the respiration began to be again laborious; she grew rapidly worse for twenty-four hours and died. Dr. C. expressed himself as pleased with the operation, as, though it did not save life, it prolonged it and gave the little sufferer two nights of tranquil sleep.

Jan. 3d, 1872.—It being the annual meeting, the Society proceeded to the election of officers, with the following result:—J. M. Nye, *President*. J. O. Webster, *Secretary*. J. G. Pinkham, *Treasurer and Librarian*.

On motion of Dr. Galloupe, the thanks of the Society were unanimously voted to Dr. Daniel Perley for the prompt and efficient manner in which he has performed the duties of President for the five years of the Society's existence.

Measles and Scarlatina combined.—Dr. Emerson reported a case in which the symptoms and eruption of measles were well marked. On the third day of eruption, the sore throat and rash of scarlatina appeared and ran their course. The child was dismissed from treatment in about a fortnight.

Gun-shot Wound of Chest; Ball removed after 7½ Years.—Dr. Galloupe reported the case of a man who was wounded, before Petersburg, June 17th, 1864, the ball entering his chest an inch and a half to the right of median line and three inches below top of sternum, fracturing two ribs. It then passed backwards and to the right, through the lung, and lodged in the right axilla. Remained in hospital until the 17th of the next September, when he returned to duty. Soon after being wounded he had hæmoptysis, and fourteen months afterwards coughed up a piece of his shirt. The missile could, from the first, be plainly felt in the axilla. He had been examined by many (18) surgeons, all of whom thought it best not to meddle with it. As he was anxious to be rid of the bullet, Dr. G. cut down and removed it, Dec. 22d, 1871, without injuring any important part. The ball was so flattened that it was impossible to tell what was its original shape, and several bits of bone were lodged in the depressions on it. The man is in perfect health.

Puerperal Fever.—Dr. Pinkham reported a fatal case of puerperal fever, to which he was called ten days after confinement. The physician who attended her in labor was, at the same time, attending a case of smallpox. Might there be an etiological connection between the two diseases?

Puerperal Pelvic Peritonitis.—Dr. Pinkham reported this case, primipara, 27. The labor was lingering, and was aided by stimulating drinks, external pressure and ergot, and was completed with forceps, Placenta was adherent, and on its removal, while the patient was still etherized, flooding took place, but was controlled by pressure, ice and ergot, with little loss of blood.

Two days later, the patient had symptoms of fever, but no pain or tenderness of abdomen. Later, there was a little pain. After a few days, symptoms continuing, a digital examination was made. The uterus was found immovable and the roof of the pelvis hard. Pelvic peritonitis was diagnosticated. The patient is now recovering.

Domestic Surgery.—Dr. Pinkham also reported this case. A man who experienced difficulty in sexual intercourse from the shortness of the frænum, divided it with a pocket knife. He came to the doctor with profuse hæmorrhage from a divided artery.

FEB. 7th. *Puerperal Convulsions.*—Dr. Nye reported the case. Patient æt. 21, seven months pregnant, had been going on well until recently. Had been imprudent in exposing herself to the weather, and for several days had had swelling of limbs, headache and dimness of vision. Convulsions began on the night of Jan. 17th. A homœopath was called in the morning, who left some medicine, which produced no effect. He did not call again.

Dr. N. called at 3, P.M-, and took a pint and a half of blood from the arm; gave of morphia one third of a grain hypodermically; brom. potass. gr. xx., and an enema. No labor pains or dilatation. Being unable to be out in the night, he transferred the case to Dr. Pinkham.

Dr. P. reported that he arrived at 8.30, P.M. Patient was restless, and had had two convulsions since Dr. Nye's visit. Gave chloral grs. xx. per enema, and, later, induced labor by injection of water and the use of a sponge tent. Drew urine, which was heavily loaded with albumen. Repeated chloral, grs. xx., at 10.30 and 12.15. Child born, dead, at 1.15. Patient slept until 5, A.M., and awoke conscious, but unaware of what had happened. Recovery complete in a few days.

Dr. Nye said he had had six cases of puerperal convulsions in a year. Four were bled and lived; the two that were not bled died. The effect of bleeding was very marked in this case.

Dr. Ahearne said he had had three cases, all recovering without bleeding. The first was readily controlled by ether, the second by chloral. In the third chloral had no effect, and he successfully resorted to the inhalation of a mixture of chloroform and ether, equal parts.

Dr. Perley reported a case in which he expected convulsions, the patient being a little dropsical, and wished to bleed, but the patient was so unmanageable that it was impossible. As soon as convulsions began he gave ether and delivered with forceps. Considerable flooding. One convulsion only after delivery.

Puerperal Mania, Treated with Chloral.—Dr. Webster reported, in detail, a case of ante-partum puerperal mania, in the ninth month. The patient had been married but one month, and the attack was attributed to the mental anxiety from which she had suffered. She had already been treated with opium and camphor and small doses of chloral, without much effect.

Chloral hydrat was administered in doses of 15 grains every twenty minutes until she became quiet, and was afterwards given, pro re nata, the whole amount taken being, in the first twenty-four hours, 113 grains, second 90 grains, third 30 grains, fourth 30 grains. There was no recurrence of the mania at confinement, which occurred at term.

Secondary Umbilical Hæmorrhage.—Dr. Pinkham reported a case of hæmorrhage from the umbilicus which will be published in full at a future time.

MARCH 20. *Case of Injury.*—Dr. Galloupe reported the case of an old, dissipated man, whose ankle was run over by the cars. Amputated a little below the knee. He did well for three days; on the fourth, mortification began at the hip and extended upward and downward, proving fatal in twenty-four hours. There had been no injury to the hip.

Tedious Labor.—Dr. Galloupe reported a case of labor in which, when it had lasted seventy-two hours, the os was only dilated enough to admit the finger, and there seemed to be no pressure from above, although the pains were strong all that time. He finally ruptured the membranes, when the head immediately descended and the labor went on rapidly, but the pains afterwards died away and it had to be completed with the forceps.

Malformation.—The child, in the above case, was healthy, but curiously malformed, having a large scrotum with a small hole in the middle of the front; there was no penis in sight, and the child urinated through the hole. The scrotum contained testes and penis, the urethral orifice of the latter being evidently attached to the hole in the scrotum.

Hour-glass Contraction.—Dr. Perley reported the case. After delivery, he waited some time for the delivery of the placenta, which he could not reach with the finger. Much flowing occurred. He finally introduced his hand, and had to force it through a stricture in the middle of the womb to find the placenta, which was imprisoned in an upper chamber, and adherent. The cord was very short and twisted around the child's leg. The contraction was perhaps produced by the cord being dragged upon during labor.

In answer to a question, Dr. P. said that ergot was administered after the child was born, while waiting for the placenta.

Selected Papers.

SEA-SICKNESS, AND SOME OF THE MEANS OF RELIEVING IT.

By Sir James Alderson, M.D., D.C.L., F.R.S., &c.

The cause of sea-sickness and its possible amelioration is a subject particularly appropriate at the present time. It is more agreeable to offer suggestions for relief than to comment on the sybaritic weakness which is generally displayed in impatience of the evils usually to be encountered in a passage across the Channel. When we remember that not half a century ago, people, after waiting days or perhaps weeks for fair wind and weather, were glad to consider a voyage of six hours of tossing and sickness as a very favorable one, one can hardly understand how the present generation feel it unendurable to submit to a single hour and a half after having started at a given time. Though, however, we must admit the fact that we are less brave in meeting discomforts than our predecessors, there is still satisfaction in diminishing those discomforts to the utmost in our power.

We have seen the futility of various childish devices, such as stimulants, globules, ice-bags, &c., all of which, not being based on any true knowledge of the evils to be met, are merely empirical. Rejecting all of these, therefore, it will be well to invite attention to a scientific explanation of the cause of sea-sickness, and to base on that explanation a proposal for a remedy.

A suggestion was made sixty years ago, by Dr. Wollaston, that sea-sickness proceeds from pressure of blood upon the brain; and this view is supported by pathological observations, since injury or pressure on the brain is almost invariably attended by vomiting, which is its earliest symptom. Dr. Wollaston explains the way in which pressure is induced upon the brain during the motion of a ship at sea, by reference to the action of mercury in the tube of a barometer. He says "that if a barometer be carried out to sea in a calm, the mercury will rest at the same height as when on shore; but when the ship falls by the subsidence of the waves, the mercury is seen apparently to rise in the tube which contains it." I may add to this, that anyone who has carried a mountain barometer, and has happened to let it descend suddenly, must have been sensible of a concussion of the mercury against the top of the tube, and must have felt and heard the blow. In fact, the mere action of walking is sufficient, by the alternate rise and fall of the hand to produce this effect. Dr. Wollaston considers that the action of the blood on the brain, at the moment of the descent of the ship, is identical with that of the mercury on the top of the barometer, and that there is an actual pressure, and even a blow, which, by frequent repetition, produces nausea and vomiting. Now it is to be regretted that Dr. Wollaston does not state the true scientific explanation of the apparent rise of the mercury in the barometrical tube, to which inaccuracy may possibly be referred the reason why so little notice has been taken of this valuable suggestion. It is not necessary here to analyze his statement with a view to refute it. The fact is undeniable, that contact does take place between the mercury and the upper part of the tube with more or less violence, and the proper explanation of the apparent rise of the mercury when the tube descends is this: that when the rigid tube falls, the mercury, having its own inertia, and not being attached to, or a part of, the tube, remains stationary—at least for a time; thus the tube is pushed down upon or over the mercury, and the concussion takes place. Exactly the same occurs between the brain and vessels on the one part and the blood on the other. The approximately rigid brain and vessels are carried downwards, the blood remains by its own inertia, and the consequence is to crowd blood into the vessels of the brain, and so press with increased force, producing a certain shock; this shock and the attendant pressure produce sickness and vomiting. The vomiting thus induced is of a peculiar character—very different from that proceeding from a common disordered stomach; it occurs in a spasmodic manner, and violent retching remains after the contents of the stomach have been ejected. This continuous retching seems to indicate the repeated action of the increased pressure.

Referring to the experience of sufferers from sea-sickness, it is admitted by all that they are most sensible of the miserable feeling at the moment of the descent of the ship. They are also conscious at that particular time of an instinctive effort to sigh or take a deep inspiration, the meaning of which is manifest. During deep inspiration the chest is dilated for the reception of air, and its vessels become more open to admit blood; so that a return of blood from the head is then more free than at any other period of complete respiration; whilst, on the contrary, by the act of expelling air from the lungs, the ingress of blood is obstructed. This obstruction is proved by observation when the surface of the brain is exposed by the operation of trephining; a successive turgescence and subsidence of the brain is then seen in alternate motion with different states of the chest. A deep inspiration, therefore, at the time of the descent of the ship tends to counteract the turgescence of the brain.

Sickness is sometimes produced by waltzing. In this case the same theory of pressure on the brain holds good; but during rapid gyration in waltzing the blood is acted on differently: it is centrifugal force which causes the blood to rise in the vessels supplied to the brain. There is an additional cause of cerebral disturbance from the confusion of objects rapidly presented to the eye; from this comes giddiness.

In reference to sickness brought on by swinging, I cannot do better than quote Dr. Wollaston: "Sickness by swinging is evidently from the same cause as sea-sickness, and that direction of the motion which occasions the most piercing sensations of uneasiness, is conformable to the same explanation already given. It is in descending forwards that this sensation is perceived, for then the blood has the greatest tendency to move from the feet towards the head, since the line joining them is in the direction of the motion; but when, in the descent backwards, the motion is transverse to the line of the body, it occasions but little inconvenience, because the tendency to propel the blood towards the head is then inconsiderable."

This last observation of Dr. Wollaston, quite accurate as to the result, plainly suggests the practical bearing of the subject. Knowing the mode in which the ship's movement acts on the brain, we are at once furnished with the only rational way of averting sea sickness.

The first point is wholly to avoid the upright posture. Every one knows that it is a common practice to lie down, and this is done almost instinctively, but it is also known that to do so, though frequently successful, is not invariably so. The way in which the motion in a swing affects the brain affords the proper explanation why lying down is not invariably successful; and shows that it is necessary, not only to take a recumbent position, but to lie in the right direction. A person lying down with the feet towards the bows of a ship is, whilst it descends in pitching, in the same position as a person in a swing descending forwards, in which case we have seen that sickness is produced by blood being forced upon the brain. On the contrary, a person lying down with his head towards the bows is, during the descent of the ship, in the position of one descending backwards in a swing, in which case the pressure by the blood will be towards the feet, and, therefore, relief rather than an inconvenince will be experienced, the tendency being to reduce the natural supply of blood to the brain. It is necessary, not only to lie down, but to do so with the head to the bows; and it is highly desirable that this position should be assumed before the ship begins to move. There is a secondary advantage to be gained by closing the eyes, and so shutting out the confusion arising from the movement of surrounding objects.—*Brit. Medical Journal.*

Medical and Surgical Journal.

Boston: Thursday, April 25, 1872.

THE USE OF TEPID BATHS IN THE TREATMENT OF FEBRILE DISEASES.

In the *Annales et Bulletin de la Soc. de Med. de Gand* are given, at some length, the results of a series of experiments by M. Schützenberger on the temperature which may advantageously be adopted in the use of baths in febrile affections. We give an abstract of the article.

For more than a year, M. Schützenberger has conducted his investigations. So long as the heat, one of the symptoms of fever, remains below 39°05 cent. (103° Fahr.), even when the pulse is high, no serious danger may be looked for to the economy. But when the temperature rises to 104° and beyond, it becomes in itself dangerous to the organism; it shows that an active combustion is going on among the tissues, which causes their rapid destruction, so long as the fever continues. In order to diminish the heart's action and to lower the temperature, recourse has been had to digitalis and to methods of external refrigeration, applied in different ways. It has been noticed that, if the baths at 15° to 20° (59° to 68° Fahr.) produce a marked depression of the heat, this advantage is counterbalanced by serious inconveniences. Many of the sick are seized, immediately after their introduction to the cold water, by a chill; the use of the bath becomes disagreeable to them and they refuse it altogether. In addition, serious attacks of pneumonia, with the occurrence of plastic exudation, often supervene on the use of the cold bath.

To avoid these dangers, M. Schützenberger advised the use of tepid baths, of which the temperature varies from 22° to 27° (71° to 80° Fahr.). During the years 1870–71, these baths have constituted the principal treatment of those under his care suffering from typhoid fever; of those, at least, whose temperature, rising above 39.5° (103° Fahr.), demanded active treatment. The simple and mild cases, in which the temperature did not exceed this point, were left to themselves. The baths were continued for fifteen or twenty minutes, until the supervention of the, so-called, goose-flesh, or a chill. A lowering of the temperature, varying from .5° to 1°, was always noticed within half an hour from the bath; in some cases this lowering of the temperature even reached 1° or 2°; and, in a few cases, it was not materially changed. In one case, which had been more carefully watched on account of the unusual symptoms developed, the bath caused an increase of the temperature.

The lowering of the temperature observed after the bath, continued in the majority of cases, during the remainder of the day; but, on the next day, a fresh elevation of temperature obliged a return to the bath. After a certain number of baths, the thermometer showed that the temperature did not return to the point reached before the use of the bath. By continuing the bath thus methodically, M. Schützenberger has been able to keep the fever within normal limits, that is below a temperature of 39° (102° Fahr.).

The favorable influence of the baths has been noticed in other symptoms than the heat alone. The nervous phenomena—delirium, insomnia and the like—have diminished in their intensity, the tongue has become clean, the abdominal disturbances have been decreased, meteorism has not supervened, and, when it has already been present, it has yielded quickly to cold compresses. As an addition to the treatment, cold was applied to the head, cold drinks were used, and quinine prescribed to the extent of 20 to 30 centigrammes daily. The diet consisted of milk and broth, when the condition of the tongue allowed.

By this method of treatment, the statistical results obtained in the cases of typhoid fever during the year 1870 were remarkably favorable. Of 38 patients, one died, during convalescence, from bedsores; the remainder recovered.

M. S. has noticed, in like manner, that tepid baths have been equally efficient in many cases of perperal fever, due to perimetritis, in periuterine abscesses and the like, in which the temperature was raised to 42° (107.6° Fahr.), and injections of quinine were inert. Baths given to the number of five in twenty-four hours, produced a rapid diminution of the temperature and amelioration of the symptoms. In variola baths have also produced favorable results; but, in this case, tepid baths have been more beneficial than cold. In certain cases of scarlatina, baths at 15° to 20° have appeared to exert a favorable influence on the disease.

It is known that Trousseau favored the use of baths at a temperature of 25° (77° Fahr.) in scarlatina. The water, which was not cold, except relatively to the temperature of the patient—which rose to 41° (105.8° Fahr.) in the axilla—produced wonderful physiological results. Under its influence the burning heat of the skin gave place to a pleasant moisture, the pulse fell from 10 to 40 pulsations, the vomiting and diarrhœa ceased, nervous symptoms disappeared, and, instead of being pale, the skin took on the rosy hue usually seen during the eruptive stage of the disease.

MEDICAL RELIEF COMMITTEE IN CHICAGO.—From the *Chicago Medical Examiner* we learn that the committee appointed in October last to receive and distribute contributions made for the benefit of the Chicago physicians have completed their duty and made their report. The gross amount of money received was $9,881.08; of which sum, $32.50 had been employed for necessary expenses, and the remainder had been appropriated to the relief of 91 practising physicians and 21 medical students, in sums varying from $30 to $350. The money had not been appropriated all at once, but from time to time, as often as a sufficient sum accumulated in the treasury. In addition to the money, the committee had received about 70 volumes of medical books, sundry surgical instruments, and, from Dr. Rauch, of Chicago, 40 tons of coal.

TONER'S MEDICAL REGISTER AND DIRECTORY OF THE UNITED STATES.—This volume, the work of years, by the eminent statistician, Dr. J. M. Toner, of Washington, has been put into the hands of Dr. S. W. Butler, of Philadelphia, for speedy publication. It is believed that it will supply an important want long felt by both the medical profession and the public.

The present volume, although not as complete in all respects as its author could wish, contains what can be found nowhere else—the names of over fifty thousand American physicians, arranged in alphabetical order, with their post-office address.

In addition to the names of physicians in practice, the work contains the names and location of all the medical colleges, hospitals and institutions of the country, the asylums for the insane and inebriate, and the names of the medical gentlemen connected with each of them. Also the names of all the medical societies, state, county, city or local, with the names of their officers, and time and place of meeting, so far as the data can be obtained.

Much other information of general interest to the profession is also given, which makes the Medical Register and Directory a valuable hand-book to every physician.

The publisher states that from 60,000 to 75,000 circulars have been mailed to physicians throughout the country, asking personal data for the completion of the Register. Physicians, wherever resident, are invited to send at once such facts concerning themselves as may be made useful.

EXTRACT FROM A CLINICAL LECTURE ON HOMŒOPATHY, delivered at the Hôpital Beaujon, by A. GUBLER, Physician of the Hospital and Agrégé of the Faculty of Medicine.—Certain it is that neither of the great principles brought forward by Hahnemann bears discussion. The first, that of *similia similibus*, becomes untenable as soon as misunderstandings are put an end to by a rigorous definition of terms and by a sounder interpretation of facts. The second, that of infinitesimal doses, absurd on its face, entails a practice as ridiculous as charlatanic.

What, then, does the new system of medicine retain? It retains, alas! its pretence of a power to heal. The homœopaths have announced brilliant successes, they have sought to meet the true physician in the field of observation and of experience. He, relying on the strength and justice of his cause, has not refused to the new doctrine the ordeal of experiment, and the ordeal has been unfavorable to it. At Paris as at Naples and St. Petersburg, under the eyes of Andral as before the Russian Areopagus, homœopathic medicaments, administered often by conscientious partisans, have produced in the course of disease no modification attributable to their special virtues. More recently, some homœopaths have voluntarily submitted to the same trial, with no better results.

Reason and experience, then, unite in condemning this medical heresy. Still the sect keeps alive, and, to a certain extent, in fashion. For homœopathy is so conveniently practised. It requires no knowledge of anatomy or of pathological physiology, no power of diagnosis; the patient tells you what he feels, you open a sort of dictionary till you find an analogous bunch of symptoms, and you administer several spoonfuls of water. Any water-carrier who can read would be able to accomplish just as much. And you have no responsibility, for if you let your patients die you cannot at any rate be said to have killed them. Moreover, among a number of physicians who share a comparatively unprofitable practice, the title of homœopath confers on you a sort of distinction and gives you a chance to feather your own nest.

Amid the general public homœopathy finds its own predestined devotees; but not among laborers or mechanics, whose safeguard is their sound common sense, nor among intelligent workers, to whatever rank of society they belong. It draws on the class of the indolent rich, whose habitual worship of self renders them at once unfaithful to their physician and an easy prey to the prowling charlatan. It especially affects ladies of fashion, eager for novelty, restless for the marvellous and inclining to superstition.

In every age it has been found necessary to meet these wants of the advanced portion of society. The eighteenth century had the bath of Mesmer; and we, infinitesimal doses, tipping tables, rapping spirits and mediums.

Is, then, homœopathy nothing but a vast illusion and a prodigious mystification? Did Hahnemann only create dupes and bring nothing useful to light?

By no means. True medicine has been served by the new doctrine in a manner none the less real for having been involuntary and unwitting. It has been the point of departure of a reaction against the sweeping system of medication that preceded it. It is a standing protest against the incessant, immoderate and brutal intervention of dynamic pharmacology.

Prescribing as it does alleged remedies in metaphysical doses and a condition of nonentity, it has caused traditional medicine to display ingenuity in the invention of preparations at once more agreeable and more convenient; it has given an impetus to the separation of alkaloids and active principles. The granules of our apothecaries have entered the lists against the globules of Hahnemann.

In casting aside the weapons belonging to our arsenal of therapeutics, homœopathic medicine has directed its attention to the influences furnished by a salutary regime, demonstrating to us the important effects of general hygiene on the cure of disease.

Moreover, under the pretence of expectant treatment, homœopathy has rendered us its possibly greatest service in improving our acquaintance with the natural course of disease, in enabling us to revise the doctrines of the critical and dictatorial past, and in giving us a more rational appreciation of the properties of drugs, the power of art, and the sources of therapeutic indications.

In fine, fantastic as were the revelations of the first experimenters, imperfect as were their explanations of the phenomena observed, the school of Hahnemann has actually contributed to the knowledge of the physiological action of drugs.

Thus homœopathy, which promised to prove a stumbling block, has turned out, I will not say an instrument but a means for advancing true medicine.

With this crumb of consolation, I gladly bring my remarks to an end. I had rather search for extenuating than aggravating circumstances in the records of an erroneous system that is now on the wane, already in a measure deserted by a large number of its former partisans, and destined sooner or later to vanish before the progress of science as darkness before dawn.—*Gazette des Hopitaux.*

A Diagnostic sign of Phtheiriasis.—Dr. Tilbury Fox contributes to the *Amer. Jour. of Syphilography and Dermatology* a communication on the diagnosis of phtheiriasis as distinguished from prurigo, from which we quote as follows :—

"The disease, in my opinion, should be described as consisting of a pathognomonic lesion, and secondary symptoms due to the irritation set up and the scratching practised by the patient.

"It is generally, I may say universally, supposed that pediculi bite. This is altogether a mistake. The pediculus has, as shown by Schjödte, a species of sucking apparatus, and not a mouth with mandibles.

"The sucker is put into a follicle, and blood is sucked away. The follicle is slightly dilated by the act of sucking, and when the sucker is withdrawn blood "wells up" and fills the follicle, producing a minute, at first bright, red speck, which soon darkens, the size of a pin point, or that of the dot over the letter i in the type of this journal, or slightly larger, not raised, not removable by pressure. This minute hæmorrhagic speck, if carefully examined, is seen to be produced of dried blood, in the somewhat dilated follicle, whose opening often looks like (*i. e.*, if the pediculus has recently entered it with its sucker) a little cupped depression. Presently the healing process restores the follicle to its normal size and state, and only a fine, very minute blood scale remains, which falls off, or can be picked off, leaving behind no sign of mischief.

"These minute specks are quite distinct from scratched follicles, which are larger, raised to sight and touch, and surrounded by an irregularly-shaped excoriation and large blood scales.

"They are pathognomonic of the attack of pediculi as much as the acarian furrow is of the acarus.

"When a patient is attacked by pediculi in abundance, the little specks stud the surface in abundance, and then we readily notice *how perfectly uniform in size and appearance they all are*, which cannot be said of excoriations or scratched inflamed follicles.

"I am in the habit, where I cannot detect pediculi in clothes, of treating cases in which the "hæmorrhagic specks" occur as cases of phtheiriasis, and with eminent success. In fact, I now never care to hunt in the clothes for pediculi, save for teaching purposes. The recognition of the lesion I have described as pathognomonic of phtheiriasis throws a new light on many cases of children and young persons who are supposed to be suffering from "pruriginous eruptions" and "lichen urticatus," though, of course, the latter disease is a distinct and substantive malady. I am sure many cases of phtheiriasis are often mistaken for it."

Urea formed in the Liver.—Next to the formation of the urea, physiologists are most interested in the *place* of its formation. Is the urea first made in the blood, and have the kidneys only to eliminate it? Or are the kidneys the place where it takes its origin? To solve this contested question, N. Gréhant repeated in C. Bernard's laboratory the following decisive experiments. He extirpated both kidneys of a dog, and found, after this operation, that the blood contained more urea than before. The same results followed the placing of ligatures on the ureters. Both experiments proved the accumulation of urea in the blood.

If the blood of the renal vein and artery of a perfectly healthy kidney be examined, it will be found that the venous blood contains less urea than the arterial, which shows us that some urea is lost during the passage of the blood through the kidneys. If the two ureters are tied so that no urea can be eliminated, the blood in the veins and arteries contains the same percentage of urea. This is an indisputable proof that the urea is not formed in the kidneys, otherwise the venous blood would contain more urea than the arterial. The great mass of urea in the blood after the extirpation of the kidneys proves the same, for if this were not true the production of urea would cease after the kidneys have been extirpated. To determine the quantity of urea, Gréhant used Millon's fluid.

Induced by the observations of Gréhant, Cyon attempted to prove that urea is produced in the liver. To this end blood was taken from the carotid of a dog which had not been narcotized, quickly defibrinized, and a part of it placed in an apparatus by means of which it was to be forced through the liver. These tubes were introduced respectively into the *vena cava inferior*, *arteria hepatica*, and *vena portæ*, then the liver cut out of the body and placed in a vessel heated to the temperature of the blood. The first tube was connected with an aspirator, the second and third with the above-mentioned apparatus, in which the blood was contained. The circulation of the blood through the liver could be kept up by means of a connecting tube, which returned the blood on its arrival in the aspirator into the first vessel, from which it could be again forced through the liver.

After the blood had been several times passed through the liver, it showed a greater percentage of urea than a like quantity of the active blood of the same animal. Cyon draws, therefore, the conclusion that the liver is the place of formation of the urea. He promises, at the same time, to follow these short cummunications with a more elaborate article. (Hr. E. Cyon, "Ueber Harnstoffbildung in der Leber," Centralblatt für die medicinischen Wissenschaften, 1870, No. 37, p. 580.)—*Brit. & For. Med.-Chir. Review*, Jan., 1872.

Chloral in the Cure of Venereal Ulcers.—Soon after the announcement of the employment of chloroform in the treatment of primitive ulcers, either soft or indurated, Dr. Mancesco Accettella instituted a series of experiments which plainly convinced him of the few indications of this preparation in the cure of venereal ulcers. He says:—"While busying myself with similar experiments, Liebreich published his observations on hydrate of chloral as actively hypnotic and anæsthetic. From that time I commenced to adopt that preparation as a local remedy, in concentrated solution, upon ulcers of such ancient date that neither the acid nitraté of mercury, nor the carbo-sulphuric paste, nor other efficient caustics, had been able to effect a cure. The effects greatly exceeded all my expectations. After the first application the deep parts of the ulcer became detached, healthy and normal granulations sprang up, and the ulcer was transformed into a simple sore, with the usual tendency to cicatrization. In sixty-nine cases in which I applied chloral topically, the following results were obtained: seven ulcerated and obstinate abrasions healed in nine to sixteen days; forty-nine soft ulcers in from eight to fourteen days; three soft ulcers, complicated with diphtheria, in eighteen to twenty-nine days; five soft ulcers, complicated with phagedæna, in twenty-four to thirty-two days; five primitive infectious ulcers, in fifteen to twenty days. Among the cases of phagedenic ulcers it is necessary to note two, which, for twelve or fifteen months, had resisted all local and general treatment, although the two women affected had the most fresh and florid constitutions. The solution employed was as follows:—chloral hydrate, five gram.; aqua. destil., gram. twenty. This, applied with a pencil to the ulcerated surface, slightly cauterizes, without producing discomfort to the patient. After two or three applications all unhealthy appearance at the bottom of the ulcer disappears, and the sore presents a bright redness which soon produces the most healthy granulations. A considerably diluted solution should be adopted for the cure of abrasions and simple ulcers. Venereal therapeutics may therefore welcome chloral as a topical remedy, *par excellence*, in the gravest form of ulceration, the phagedenic. — *Gazetta Medica Ital. Lomb.*, No. 31, 1871.

Ice in the Rectum for Retention of Urine.—Dr. Cazenave, of Bordeaux (*Journal de Med. et de Chir.*, May, 1871, quoted in the *Med. and Surg. Reporter*), says that during twenty years, the following simple expedient has never failed in giving relief in retention of urine. He introduces into the rectum a piece of ice of the form of an elongated oval, about the size of a chestnut, which he pushes up beyond the sphincters, and renews every two hours. Almost always, in an hour and a half or two hours at longest, urethral spasm ceases, a certain quantity of urine is passed, and the bladder is emptied without effort by the patient. If in rare and exceptional cases this does not take place, he again introduces pieces of ice into the rectum, and also places broken ice from the anus up to the end of the penis, until the urine flows, which it infallibly does. When there is difficulty in making water, occasioned by prostatic hypertrophy, the good effects of the ice are rather longer in coming on, but almost always are produced. In short, in these circumstances (strictures and prostatic hypertrophies), the sedative effects are so well marked, thanks to the effects of the ice, that the introduction of bougies and sounds into the bladder and urethra is always rendered easy to practised surgeons, and hardly any pain is felt. In our Chronicle for May we mentioned Dr. Baillie's statement, that ice per rectum was invaluable in the narcosis of chloroform. We have now to add that the same mode of using the same agent has been reported on for retention.—*Pacific Med. and Surg. Jour.*

A Fact for Landlords.—The Metropolitan Association for Improving the Dwellings of the Working Classes, in the eleven properties it now has, affords houseroom to 3,934 persons. During the year 1870–71, the death-rate of the metropolis averaged 24 per 1,000, but in these select dwellings it only reached 17 per 1,000.—*Brit. Med. Journal.*

Medical Miscellany.

At the annual meeting of the Obstetrical Society of Boston the following gentlemen were elected officers for the ensuing year:—

President, Dr. Wm. Read; 1*st Vice President*, Dr. S. L. Abbot; 2*d Vice President*, Dr. James Ayer. *Treasurer*, Dr. C. D. Homans. *Recording Secretary*, Dr. W. L. Richardson; *Corresponding Secretary*, Dr. L. Parks, Jr. *Prudential Committee*, Drs. C. G. Putnam, C. E. Buckingham, B. E. Cotting, A. D. Sinclair.

Middlesex South District Medical Society.—The Society met at Cambridge, April 17th. The following list of officers was elected by ballot:—

President, Morrill Wyman; *Vice-President*, W. W. Wellington. *Secretary*, C. E. Vaughan. *Treasurer*, J. W. Willis. *Censors*, S. W. Driver, Z. B. Adams, H. P. Walcott, B. F. D. Adams, L. Woods. *Commissioner on Trials*, Howland Holmes. *Councillors*, W. W. Wellington, R. S. Warren, Jeffries Wyman, H. A. Barrett, A. H. Blanchard, J. C. Dorr, R. L. Hodgdon, A. P. Hooker, T. P. Robinson, W. B. Morris, G. J. Townsend, J. T. G. Nichols, Alfred Hosmer, G. C. Lincoln, Z. B. Adams.

The Society decided, by a large vote, not to send delegates to the meeting of the American Medical Association.

Appointments.—Dr. Francis B. Greenough has been elected one of the surgeons, and Dr. W. H. H. Hastings one of the physicians at the Central Office of the Boston Dispensary.

Dr. A. L. Haskins has been appointed Physician to out-patients at the Boston City Hospital.

The First Medical Journal ever published was the *Zodiacus Medico-Gallicus*, a French monthly periodical, edited by Dr. Nicholas de Blegny. It appeared in 1680, and its editor subsequently became physician to King Louis XIV. Its success was somewhat ephemeral, owing, it is believed, to the independent pungency of the critical notices which it contained of the cotemporary medical literature. It survived four years, but lived long enough to become the patriarchal prototype of an innumerable line of medical periodical literature. The credit of this research for the protoplasm of medical journalism belongs to the *Medical and Surgical Reporter*.

The Invalid's Dinner Table.—They have at Cardiff, in England, an institution whose object is to provide sick or sickly men, women and children of the poorer class a good meal once a day of food well cooked, the recipients of the benefaction dining together as far as may be at one table. The meal is provided three days in the week the year round. A half penny gives the privileges of this dinner to those who meet around the board, and twopence is exacted from those who prefer to dine alone. In connection with this organization there is a club in which those depositing money are entitled to dinners, to the extent of their deposit, in times of sickness of themselves or their families—a Dinner Insurance Company, whose benefits are obvious.

The Importation of Opium.—The money value of opium imported through the Custom House of New York City, in the year 1871, was $1,299,091.

To Correspondents.—Communications accepted:—Anomalous Case of Angina Pectoris.—A Letter from Vienna.

Correction.—In Journal for April 18, page 256, in title of article, for "prolapsus uterus" read *prolapsus uteri*.

Books Received.—The Treatment of Venereal Diseases; a Monograph on the Method pursued in the Vienna Hospital under the direction of Prof. von Sigmund. By M. H. Henry, M.D., Surgeon to the New York Dispensary, Department of Venereal and Skin Diseases, &c. New York: Wm. Wood & Co. 1872. Pp. 49. (From James Campbell.)—Lectures on Aural Catarrh; or the commonest forms of Deafness and their Cure. By Peter Allen, M.D., F.R.C.S.E., &c. New York. 1872. Pp. 277. (From James Campbell.)

Married,—In Boston, 19th inst., Theo. F. Breck, M.D., of Springfield, to Miss Helen Cordelia Townsend, of Boston.

Died,—In Lynn, 21st inst., of nervous prostration and anæmia, James M. Nye, M.D., aged 53.—In Canton, 21st inst., Ezra Abbott, M.D., 63.

Deaths in thirteen Cities and Towns of Massachusetts for the week ending April 20, 1872.

Cities and Towns.	*No. of Deaths.*
Boston	112
Charlestown	16
Worcester	29
Milford	3
Cambridge	14
Salem	6
Lawrence	11
Lynn	10
Fitchburg	5
Newburyport	4
Somerville	4
Fall River	17
Haverhill	9
	240

Prevalent Diseases.	
Consumption	45
Pneumonia	44
Scarlet fever	14
Measles	8

Five deaths from smallpox occurred in Boston.

George Derby, M.D.,
Secretary of State Board of Health.

Deaths in Boston for the week ending Saturday, April 20th, 112. Males, 57; females, 55. Accident, 3—apoplexy, 2—inflammation of the bowels, 1—bronchitis, 1—inflammation of the brain, 1—congestion of the brain, 3—disease of the brain, 3—cancer, 1—cerebro-spinal meningitis, 1—cyanosis, 1—consumption, 22—convulsions, 4—debility, 4—dropsy of the brain, 2—diphtheria, 1—scarlet fever, 7—typhoid fever, 2—hernia, 1—disease of the heart, 3—homicide, 1—disease of the kidneys, 2—disease of the liver, 1—congestion of the lungs, 1—inflammation of the lungs, 16—marasmus, 5—measles, 2—old age, 2—paralysis, 1—premature birth, 1—peritonitis, 1—puerperal disease, 3—rheumatism, 1—rupture of the urethra, 1—scrofula, 1—smallpox, 5—suicide, 3—whooping cough, 1—unknown, 1.

Under 5 years of age, 41—between 5 and 20 years, 13—between 20 and 40 years, 34—between 40 and 60 years, 15—above 60 years, 9. Born in the United States, 74—Ireland, 19—other places, 19.

THE

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Original Communications.

A CASE OF ADHERENT PLACENTA.

By W. H. H. Hastings, M.D., Boston.

The following case is one of a class which occur very seldom, and it is reported with the hope that it may prove of some interest to the members of this Society.

J. F., æt. 26, a large, robust woman, who had always enjoyed excellent health, except while ill with lung fever in January, 1871, was taken with the pains of labor at the full term of her first pregnancy on the afternoon of January 6th, 1872. At one the next morning, after moderate pains and less than the usual amount of fatigue, the child was born. As soon as the cord was tied and the child removed, I proceeded, as usual, to deliver the placenta by using external pressure over the fundus uteri together with traction upon the cord. I practised this method at intervals, for an hour, but finding that it failed, I then passed my right hand into the vagina and slowly into the uterus. The placenta was found firmly attached to the uterine walls at its usual point of insertion. I made careful attempts with the fingers to detach the edges, but the struggles of the patient and the firm contractions of the uterus rendered the task almost impossible. After several unsatisfactory trials, a portion of the placenta, including the cord, was removed—the amount in all did not exceed a quarter part of a normal after-birth. No hæmorrhage followed the operation, and no further interference was deemed advisable, as the patient had become very much exhausted from the protracted efforts of nearly three hours. Ergot was given to continue the contractions, and opium to relieve the pain and nervous irritability.

Jan. 9th.—Two days after confinement—the patient had been very comfortable until last night, when a slight chill occurred. She complains now of abdominal pain—has no appetite. Tongue nearly covered with a thick white coat. Pulse 112. Ordered one grain of quinine every two hours, and opium p. r. n.

Jan. 10th.—Had a severe chill last night, followed by profuse perspiration. Passed about six ounces of coagulated blood. Abdomen swollen and very tender on pressure. Milk and lochia suppressed. Pulse 120. Brandy and beef-tea were ordered every two hours. Opium as before. Hot applications to the breasts and genitals.

10, P.M.—She was seen by Dr. Harlow. Had had a very uncomfortable day, with another severe chill during the afternoon. Quite a quantity of clotted blood was found in the vagina, and some pieces of the membranes extracted from the os uteri. She complains of weakness and abdominal soreness. Carbolic acid injections were ordered twice daily, and the previous treatment continued.

Jan. 11th.—Had a severe chill about midnight Slept a little. Complains principally this morning of a "fluttering" sensation in cardiac region. Is very much depressed, and thinks she is dying. Pulse 136; respiration 36; temperature 102°.

Jan. 12th.—Had a slight chill again last night. Slept some after two grains of opium. Feels rather better this morning. Milk and lochia returned, the latter quite offensive and very profuse. Pulse 120; resp. 30; temp. 101°.

Jan. 13th.—No chill. Pulse 112. General condition better.

Jan. 15th.—Perspiration, day and night, still very profuse. No hæmorrhage. Less abdominal tenderness. Pulse 112; tongue cleaner.

Jan. 27th.—Three weeks after confinement.—The patient has been slowly improving, though still unable to sit up. Uterine tumor distinctly felt, and apparently larger than usual. No hæmorrhage. Lochia nearly ceased. Face very pale. Pulse 108.

March 7th.—Two months after confinement.—Has improved steadily since last report. Now sits up several hours every day.

March 18th.—Has been out to-day for

the first time, and thinks she is nearly as strong as ever.

Various theories have been advanced by different writers to explain the causes of abnormal adhesions of the placenta to the uterus. From the last edition of Cazeaux, we copy the following: "According to most authors, they are owing to a fibrous transformation of the cellular filaments which hold the placenta together, whereby they acquire a degree of solidity sufficient to withstand the uterine forces. These adhesions have also been referred to the degenerations of the placental tissue itself, as well as to various osseous and calcareous concretions. * * * The generally received opinion is, that these abnormal adhesions result in consequence of an inflammation of the placenta, or of the uterine wall during gestation, which is terminated by the exudation of plastic and coagulable lymph between the contiguous surfaces."

IRRITABLE UTERUS.

Read before the Quarterly Meeting of the Rhode Island Medical Society, March 20th, 1872, by W. O. Brown, M.D., Providence, R. I.

Soon after commencing practice, I was employed to treat several cases of vaguely defined uterine affections. From that time to the present, similar cases have been of frequent recurrence in my own practice, and I presume mine is no uncommon experience. A single sketch, which is made from memory only (after a lapse of twenty years), may answer my purpose of bringing the subject before you.

One of the first cases which I recall was that of a widow lady, about 40 years of age, small in stature, thin and of a nervous temperament. She complained of pain and bearing down in the uterine region, with general debility and nervousness. This had been her condition for a long time, and she had been under the treatment of several physicians without permanent benefit. Digital examination revealed considerable uterine tenderness, and the speculum, at times at least, showed congestion of the os and cervix uteri. The uterine sound could be introduced without much difficulty, although there may have been some uterine flexion and want of firmness, or tonicity in the uterus and appendages. This was about the time when Dr. Bennett's practice and writings had done so much to direct attention to congestion, abrasion and ulceration of the os and cervix, and to ante- and retro-versions and flexions of the uterus. The patient was carefully examined, and treated for most of these affections, according to the approved methods of the time. Applications were made of solutions of nitrate of silver, and of solid caustic, injections were used and leeches applied to the cervix, and extra- and intra-uterine pessaries and abdominal supporters and bandages, were tried. Tonics were given, and a general supporting plan of treatment was adopted. The most important result was to arrest leucorrhœa, and to afford temporary, or only partially permanent, relief. During the treatment, the benefit of experienced counsel in this city was enjoyed.

Several cases of the general character of the above, which need not be here described particularly, occurred during my first year of practice, and afforded opportunity to try the various methods and remedies then recommended in such cases, and to be much disappointed with the results.

Is there any general misapprehension of the nature, prognosis and treatment of a large number of similar cases which might be classed under one head?

Anatomically and physiologically it will be sufficient to call your attention to the fact that when in a healthy and natural condition, the uterus is held in position in the centre, or axis of the superior strait of the pelvis, by four pairs of ligaments. These are mostly made up of fibrous tissue, containing a few muscular fibres, together with bloodvessels, nerves and lymphatics; and are possessed of tonicity and elasticity, permitting of limited but free movements of the uterus in every direction, so as to accommodate itself to the variable conditions of the bladder, rectum, small intestines, and to its own extension during pregnancy. So long as the uterus and its appendages retain their normal structure and tonicity, the organ oscillates within certain not very circumscribed limits, yielding and recovering its position without pain or inconvenience. The uterus and its appendages possess all the elements, as nerves, muscles, fibrous tissue, bloodvessels, &c., which, entering into the structure of other organs, make them subject to neuralgia, rheumatism, painful congestions and the like. Moreover, the bloodvessels of the fundus and body of the uterus, being very numerous and tortuous, and the veins being without valves and subject to such great enlargement after puberty, the liability to all the above painful affections must be greatly increased, and the more so since the uterus is partially detached from the vital protection of the rest of the body, being in some sense foreign to it, and is at the same time, including the ovaries, the subject of intense emotional and periodical excitement. Is any other organ of the body so completely exposed to the invasion of neuralgia or nervous irritability as this, during the period of menstrual life? Should not a liberal share of the suffering in this region be credited to this source? Is it probable that, in an organ constructed to admit of so free motion, variations in position which the most erudite touch cannot determine to be beyond normal limits, are the most common cause of the suffering which we know to be experienced so frequently in this region? Is not the altered position and flexion usually a secondary result, and due to a loss of tonicity in the organs involved? If the affirmative of these hypotheses be true, neuralgia, or nervous irritability, becomes a very extensive and important division of uterine affections.

If we understand him, this condition is what Prof. Hugh L. Hodge classifies as "irritable uterus," and defines it briefly as "that state of the nerves of the organ in which they are preternaturally susceptible to impressions." This subject was a prominent, if not principal (but we fear little appreciated) topic in his lectures, and makes up a large part of his treatise upon "The Diseases peculiar to Women." It is not because we regard it as an agreeable or a classical subject that it has been chosen as a text for this essay, but because it is believed this condition is often misapprehended and confounded with other uterine affections, greatly to the prejudice of the practitioner and patient, being a fruitful source of error in prognosis and treatment, and too often of empiricism or intentional imposition. It is not designed in this article to enter minutely into an investigation of the causes. It is sufficient to say that they are such as induce neuralgia in other parts of the system, many of which become more effective in the uterus and its appendages because of its peculiar structure, position and functions. It may be well to mention the want of pure, fresh air and the influence of the frequent, but little understood atmospheric changes as common causes of nervous irritability.

If we accept Prof. Hodge's definition of irritable uterus as "that state of the nerves of the organ in which they are preternaturally susceptible to impressions," the diagnosis of uncomplicated cases is very easy and certain; and in those cases which are caused by or are associated with organic lesions, as acute or chronic inflammation, hypertrophy, displacement, flexion or malignant disease, &c., the particular local lesion may often if not always be recognized and its influence taken into account.

Especial importance attaches to the *prognosis* in these cases, that neither physician nor patient may be lured into disappointment by false estimates or into a too active and mischievous course of treatment. "It is a general truth," says Prof. Hodge, "that neurotic diseases disappear at fifty years of age. The married woman looks forward with pleasure to this period of her existence, when the sufferings of maternity shall cease. The martyrs of neuralgic complaints (always dying but still surviving), whether married or single, whether blessed with children or denied this great privilege of woman, bend their thoughts and wishes to the same important epoch. Far off it may be. * * * * Still the hope arises, and should be encouraged, that amid the revolutions of the animal functions, pain and distress will cease, and the blessing of health will be again granted. * * * *

"Happily, however, by attention and appropriate treatment, irritable diseases can often be arrested, and health restored, long before the period of the cessation of the menses. * * * * A perfect recovery may be very confidently anticipated in most of the ('uncomplicated') cases, and occasionally the restoration to health is very rapid."

Your essayist does not assume to instruct this audience of learned and experienced physicians in the general treatment of uterine diseases, but there are certain points in the treatment of uterine irritability and its complications which seem to him to be very useful, and it is mainly to these that he proposes to allude.

It is desirable, clearly, to mark the distinction between simple nervous action, constituting *nervous* irritability, and *organic irritability* arising from inflamed muscular or other tissues; in other words, that there is painful nervous, uterine irritation, without inflammation or discoverable organic lesion. The one form requiring, in brief, antispasmodics, the other antiphlogistics; a combination of the two demanding a similar modification of the treatment. An inflamed, irritable and hypertrophied uterus, which may be incurable, may, by rest and a cooling and soothing course of treatment, aided ultimately perhaps by mechanical support, cease to be troublesome. Relaxation of the ligaments, versions and flexions of the uterus, resulting from want of tonicity in the parts, participating, it may be, in a general want of tone in the system, at once suggest such remedial measures as shall restore firmness and tone where it is deficient—a general tonic and supporting plan, varied according to indications, and adapted to particular lesions. Iron, in the absence of acute inflammation, internally, and the free use of water, both internally and externally, is often of the very greatest service.

Direct applications to irritable or inflamed parts are usually most effectual. A syringe, throwing a continuous stream, which can be made to bathe the cervix uteri and vagina, affords a very complete means of accomplishing this object. When it can be borne, two or three quarts of water, of such temperature as is most agreeable, without leaving an after chill, applied in this manner once or twice a day, may afford great and lasting relief. Mucilaginous injections will often be more useful. Cold, even ice-cold, water, if it does not leave an after-chill, is of course most antiphlogistic and tonic; due precaution always being observed in making applications during the menstrual week. Medicated, astringent or antiseptic injections, as solutions of sulphate of zinc, nitrate of silver, carbolic acid, &c., will be suggested by the conditions of the case, as will warm or cold bathing, antispasmodics, &c.

As illustrations, two cases are narrated, but briefly to avoid the unnecessary prolongation of this paper. During the latter part of the summer of 1871, a middle-aged, married English woman came under treatment. She complained of great pain and tenderness through the lower part of the abdomen. There was old hypertrophy and induration of the uterus, with acute inflammation, pain and tenderness, involving to a considerable extent the pelvic tissues. There were indications of congestion of the portal system, and she was purged repeatedly with protochloride of mercury, and kept at rest in bed. Under use of antiphlogistics, anodynes, and fomentations to the abdomen, she slowly improved. After some weeks, she was put upon the use of liberal vaginal injections of warm water, with benefit. These were changed for cold water with most gratifying effect, and she was soon about her household duties. She informed me recently that she still continues to use the injections of cold water, sometimes ice cold, daily, with a constant sense of refreshment and relief.

A married, middle-aged lady came under treatment some years since, complaining of pain through the uterine region, with dragging down, and general nervous prostration of the system. She had been treated for so-called ulcerations, displacements, &c., without marked or lasting benefit. Careful digital examination revealed nothing of displacement, to which the symptoms could satisfactorily be referred. She had some leucorrhœal discharge, for which she was directed to wash out the vagina with tepid water, and use the sulphate of zinc injections, and to take the tincture of iron internally. It was evidently a case of neuralgic or irritable uterus; ultimately, she found large injections of warm water, with iron and other supporting treatment, best adapted to her case; and being satisfied that neuralgia may as well invade the uterus as any other organ, she "bides her time" with a good degree of cheerfulness.

Error in many of these cases is believed to be two-fold; it consists in attempting to cure what can only be palliated, and in failing to use the best palliative means.

Dr. Hodge remarks that "there are few patients who will not be benefitted by letting water fall on the spine from a spout or a pitcher; the higher the fall of water, and the more prolonged the time employed, the greater the impression." This is to be succeeded immediately by friction with coarse towels, hair gloves, &c. &c., and, if required, by rubefacients. In some cases he says, "especially in winter, the patient's back being exposed to the direct heat of a fire, and the rest of the person being protected by blankets, the 'douche' may be resorted to with great freedom, and almost a certainty of a favorable reaction." "Cold, when thus employed, merely to the spine, is invaluable." He also recommends sponge baths to the rest of the body, and says, "Perhaps no woman in a non-menstrual condition should neglect the free use of cold water to the pudendum, at least once every day," and except at such periods, "*cold-water* vaginal injections should be a daily resource."

The following are some of the principal points which it has been the object of this paper to maintain.

1st, From the structure, position and functions of the uterus, it is peculiarly subject to pure neuralgia, or nervous irritability, termed, by Prof. Hodge, "Irritable Uterus," and which is thought to be the most frequent source of error in the diagnosis, and of charlatans in the prognosis and treatment of uterine diseases, often resulting greatly to the prejudice of the physician and patient.

2d, Uterine irritability is often a consequent of, or associated with, organic disease of the uterus, thus complicating the diagnosis and treatment. The one being an attendant upon menstrual life is usually self limited, requiring an antispasmodic and tonic method of treatment; the other demanding rest, antiphlogistics, and, perhaps, mechanical support.

3d, Not discarding other remedies, water is directly and especially applicable in these cases, internally and externally, at temperatures varying from ice cold to hot; it may thus be made to fulfil various indications as an antispasmodic, antiphlogistic, or as a tonic.

Foreign Correspondence.

LOSTORFER'S CORPUSCLES.

Vienna, March 20, 1872.

Messrs. Editors,—I wish I could head this letter "Syphilitic Corpuscles" with a conviction of the proper application of the term to the bodies in question; but so much ridicule has been showered upon the new discovery, that the medical community has very generally moderated the fervor of its first reception and now holds its judgment in suspense.

Having neither time nor opportunity for private research, and therefore aspiring only to present a true reflexion of the current opinions about this interesting subject, I must crave indulgence, if the tenor of my communications changes, chameleon-like, from time to time.

A new paper by Dr. Lostorfer has recently appeared in the "Jahrbuch der Gesellschaft der Aerzte," of which Stricker is editor; but little additional light is, however, thrown upon the subject, either by the article itself, or by the postscript and notes appended by Stricker. I will give a few disjointed extracts that seem not to have been inserted in the paper already transmitted to you.

"By no means all of the corpuscles were spherical, many were irregular. * * * On being kept eight or ten days, one vacuole formed in each of the larger corpuscles, which continually increased in size, until, at length, it was only enclosed within a thin wall of double contour. With this the development of these corpuscles ceased to be observed, even though watched for month.

"The contents of the corpuscles I have tested by the addition of various fluids, such as a solution of sugar, distilled water, Pasteur's fluid, a one-half per cent. solution of vinegar. These fluids, if added on the first days, had the same effect, despite their different qualities. The corpuscles shriveled up into dark irregular formed masses, and all farther development was arrested; the solution of sugar and Pasteur's fluid acted the most speedily. When added on the sixth or eighth day after the appearance of these corpuscles, the fluids caused in them a shrinking together, but this was much less marked than in the previous experiments. Many of the large corpuscles appeared as though folded, and assumed an irregular outline, others remained spherical, but diminished in size, their contour became more distinct, and their brilliancy paled. A farther development I only noticed on the addition of distilled water (!), of a very weak solution of sugar, and in one case of a one-half per cent. solution of salt. These changes consisted in a quick enlargement of the vacuoles, a formation of sprouts, and, finally, the pushing out of long processes, bearing a close resemblance to micelium.

"Since in no specimen of blood from a non-syphilitic person are the described corpuscles to be found, even with the most minute examination, they must be regarded as characteristic of syphilitic blood."

Here follow the records of thirteen cases of syphilis, in its various stages of exanthema, roseola, pustules, papules, ulcers, &c. &c.

"Finally, I am convinced," he adds, "that a connection between these corpuscles and syphilis is established, but not necessarily that my corpuscles are the bearers of the contagion of the disease."

All of Dr. Lostorfer's publications are characterized by the same vague, unscientific, and, at times, contradictory descriptions, utterly inadequate to guide others in their efforts to confirm or refute his claims. Prof. Stricker's note and postscript are clear, emphatic and valuable, as far as they go. I will give a translation of the gist of them.

"Since my name has been involved in this not unimportant announcement, I find myself called upon to detail the tests, to which I subjected Dr. Lostorfer. On the first occasion, twelve numbered specimens were laid before Dr. L., of which two (Nos. VIII. and IX.) were from non-syphilitic, and ten from three different syphilitic patients.

L. returned the answer, after several days: Nos. VIII. and IX. non-syphilis, two specimens spoiled, the remaining syphilis. At the second test were seven preparations: Nos. I. and III. from a syphilitic, the rest from a non-syphilitic individual.

"The third time nine specimens were given to Dr. L., of which Nos. III., V. and VIII. were from a syphilitic and the remainder from a non-syphilitic person. In both of these cases the syphilitic specimens were picked out after four days, and the remaining designated as non-syphilitic, excepting two ruined specimens in each series.

"At the 4th test, twelve preparations were made, four from syphilis and eight from non-syphilis. The reply was that nothing could be found. The specimens had accidentally been exposed to a temperature of from –12 to –15 Celsius.

"At the fifth test, in which Prof. Hebra participated, four non-syphilitic and three syphilitic specimens were given. The reply was:—four non-syphilis, bearing the numbers corresponding to the numbers of the syphilitic specimens in the protocol, which Prof. Hebra had kept secret; a fifth was designated as certainly syphilis and two as useless."

"At the sixth test was one syphilis with three non-syphilis given, at the seventh two syphilis with four non-syphilis; in both cases the reply was in accordance with the protocol.

"At the eighth test, Dr. Kaposi (Moritz Kohn), who has studied the corpuscles as co-worker of Lostorfer's, selected from six specimens set before him four syphilis from two non-syphilis, also in accordance with the protocol. In conclusion, I must remark that for the non-syphilitic I selected men who appeared in every way to be healthy. S. STRICKER."

Later, Stricker accepts Prof. Wedl's statement that it cannot be expected of any scientific man that he shall test every new discovery in the presence of its promulgator, as self-evident, but insists that, at least, investigators must be acquainted with the method of the discoverer, and follow it; he charges Prof. Wedl with a neglect of this, inasmuch as the latter added water to his specimens, in order to remove the blood corpuscles. "The blood corpuscles ought not," says he, "to cling together, as occurred in Prof. Wedl's preparations. The blood corpuscles must lie for the most part singly, near each other, and upon their broad sides. Every disk must stand out sharply from the surrounding plasma. A drop of water destroys the whole specimen, changes the whole picture. The red corpuscles become spherical, cloudy, are excited to hurried movements; the white corpuscles become in part torn, discharge their granular contents; the plasma becomes thicker than it was, many nuclei and masses appear, of whose origin no opinion can be formed; whatever is capable of imbibition imbibes and becomes spherical.

"If, then, Prof. Wedl makes use of water to render his preparations clearer, he has certainly never seen these corpuscles. In view of these facts, I have come to the conclusion that Prof. Wedl's opposition has nothing to do with Lostorfer's corpuscles. STRICKER."

The commission to which the whole matter was referred by the Society has declined to act. First, Karsten considered himself affronted by the opposition to his name, when proposed, and more especially at Prof. Hebra's remark on adding his name to the list, "perhaps he won't accept."

Brücke and Billroth objected to serving, inasmuch as the question was not one of special interest to them, and in their opinion should be left to the further researches of the specialists in that branch. The remaining members of the commission, concurring in their view, were, on application to the Society, relieved from duty.

I trust next week to be able to give you a more satisfactory description of these corpuscles, as I am following them from day to day in their development in the preparations of a friend, who has been studying them for two months under the supervision of Dr. Lostorfer.

I am yours, &c.
JAMES R. CHADWICK, M.D.

Reports of Medical Societies.

SUFFOLK DISTRICT MEDICAL SOCIETY. REPORTED FOR THE JOURNAL.

THE Society met Saturday evening, March 30th, the president, Dr. Lyman, in the chair.

Dr. Fitz presented a specimen of *cirrhosis of the liver* complicated with malignant disease. The case occurred in the practice of Dr. Breed, of Lynn. A tailor, 62 years old, of temperate habits, and without recognized hereditary predisposition, had noticed for some time a tumor in the right hypochondrium, whose origin was thought to have some connection with the continuous use of the lap-board. Last summer, however (1871), his condition suggested to him the increasing necessity for medical advice. There was progressive emaciation and general depression, with sallowness of the skin. In December last, a distinctly marked tumor was determined beneath the ribs on the right side, impinging upon them and forcing them upwards. It was tender on pressure. In course of time, the dulness on percussion over this growth had extended well towards the median line of the abdomen. In January, an attempt was made to determine the nature of the new growth; the needle of a hypodermic syringe was inserted vertically into the most prominent point of the swelling, entering as it appeared a solid mass. The piston being withdrawn, semi-solid matter followed, which, under the microscope, exhibited epithelium, mucus and blood, characters which led Dr. Fitz to diagnosticate malignant disease. The patient failed progressively, without any very decided symptoms, and died March 26th.

At the autopsy, some three quarts of dark-red, bloody fluid were removed from the peritoneal cavity, that last removed quite thick and blood-like. A large mass of freshly-coagulated blood, a half-inch in thickness, was found covering the right lobe of the liver.

Spleen normal in appearance, rather paler than usual.

Liver rather small, quite firm; surface granular, with yellow, sub-peritoneal nodules, of the size of a bean and smaller, which, on section, were found to be made up of a soft, yellow mass. One nodule, of the size of a small peach, projected, at least, an inch above the surface of the organ, the peritoneum over which was denser, thicker, more opaque than elsewhere, and was connected with the diaphragmatic peritoneum by means of several firm, fibrous bands. Occasionally, other nipple-like pendulous prominences were observed, rather soft and of a dark-red color.

The entire organ was of a marked, yellow color. On section, firm bands of gray, moderately translucent fibrous tissue were seen to traverse the organ in various directions, separating the parenchyma into larger and smaller masses. This surface presented, at greater or less intervals, rounded, homogeneous, universally yellow, slightly elevated, softened patches. On pressure, these were squeezed out as cylindrical plugs, of the consistency of ice-cream, leaving behind cavities and canals, with relatively smooth, apparently fibrous walls. A section of the large nodule, previously referred to, showed in its interior similar yellow, smeary portions, more or less lobulated, interspersed with partially decolorized, hæmorrhagic masses, intervening between which were delicate bands of firm, white tissue.

Gall-bladder, ductus cysticus, hepaticus and communis, apparently normal.

In intimate connection with the porta of the liver, covered by peritoneum, and presenting numerous adhesions to the surrounding viscera, was a soft, rounded, yielding tumor, of the size of the fœtal head. On palpation, an indistinct feeling of fluctuation existed. Over the anterior surface of this mass the posterior wall of the stomach and the great omentum were adherent; the duodenum also was adherent to the lower inferior, and, to a slight extent, posterior portions. The tail of the pancreas apparently was not involved, and numerous relatively normal lymphatic glands were found behind the tumor. On section, it was found to be quite distinct from the liver, though intimately adherent to the lower surface of the right lobe.

The cut surface presented an appearance suggestive of a lobulated condition, and showed that the tumor was made up of a soft, yellow, pulpy mass, surrounded by tolerably dense septa of fibrous tissue. The yellow portion was easily washed away by a jet of water.

Microscopically, the structure was that of alveolar cancer, in an advanced stage of fatty degeneration.

The stomach presented no unusual appearances; just beneath the pylorus, in the posterior wall of the duodenum, two round, sharply-cut ulcers were observed, extending fairly through the mucous membrane, the bases covered by a gray muco-purulent layer. The adhesions between the tumor and the serous surface of the intestine at this point were not unusually firm, nor was there any evidence of perforation. Several scattered, isolated, grayish nodules were found on the parietal peritoneal surface in the immediate vicinity of the tumor.

The portal vein outside the liver was partially obstructed with softened cancerous masses, and its branches in the liver often completely plugged with the same.

Primary cancer of pancreas (?), cancer of liver, chronic interstitial hepatitis, double chronic ulcer of the duodenum, ascites and fatal hæmorrhage into the abdominal cavity, probably from the cancerous nodules projecting from the surface of the liver, constituted the complication of organic lesions which destroyed the patient's life.

Dr. Jackson remarked, concerning this

case, that it illustrated a coincidence of hepatic diseases he thought very rare, viz., the simultaneous presence of cirrhosis and of encephaloid. This coincidence, taken in connection with the hæmorrhage, the immediate cause of death, made the instance one of remarkable interest. It was the third case of the kind within his knowledge; and the two others, of which he made the dissections, were characterized by such an identity of clinical history and were so nearly similar, in many points, to the present one, that their details might not be considered uninstructive in this connection.

The first case occurred in the practice of the late Dr. Hayden, in 1840. The patient was an active business man, 40 years of age, who, although in somewhat delicate health (the symptoms of prominence suggesting a phthisical tendency), was able to attend to his duties with the usual vigor up to within eighteen hours of his death. The attack which terminated his life came on suddenly two hours after dinner, the initiatory symptoms being chiefly those of colic. Six hours before death, marked symptoms of internal hæmorrhage supervened. On examination, after death, the abdominal cavity was found to contain a wash-basin full of bloody fluid, with a large single coagulum. As usual, where blood is effused into a serous cavity, Dr. J. remarked, there was no inflammation. Beneath the serous surface of the peritoneum were ecchymosed patches, but the source of the hæmorrhage, after a careful search, was not discovered. The liver was in a condition of universal cirrhosis, and there were a number of encephaloid nodules, the largest of these, however, being only about an inch and a half in diameter. The surface of some of these nodules was ecchymosed. The spleen, as is so often the case in cirrhosis, was enlarged.

The second case occurred in April, 1844, and in the practice of the late Dr. Townsend, Sen. Like the first patient, this man presented no distinct symptoms of local or general disease prior to the fatal seizure. His age was 68 years, and he was engaged until the day before his death in active business. On rising from his bed at 5½, A.M., he felt rather unwell and laid down again; faintness soon came on, with intense pain in the region of the diaphragm, and he died at 6½ o'clock. The peritoneal cavity contained four or five quarts of blood. The liver was affected with cirrhosis to a marked degree. Encephaloid disease appeared in multiple masses of small size, with one large nodule, broken down in the centre and filled with a clot of the size of the fist; this larger mass pushed upward against the diaghragm, presenting a distinct bulging within the thoracic cavity. Near it, was a cavity of considerable size, filled with old pale fibrin; and this was undoubtedly the result of hæmorrhage, as the patient was said to have had an attack, similar to the fatal one, about a month before his death.

Dr. J. remarked upon the curious negative fact that in these three cases there existed in the liver two distinct and important forms of disease, and yet neither of them was manifested by what are often regarded as characteristic symptoms. Cirrhosis most satisfactorily explains ascites, and yet he had met with the most marked cases in which there was neither dropsy, nor any symptom that led to a suspicion of the disease, and so encephaloid of the liver may be perfectly latent, unless the deposit is so situated as to obstruct the passage of the bile through the large ducts.

Dr. Folsom reported a case of *malignant disease of the liver*, and exhibited the specimen. The patient, a man of 49 years, dated the commencement of his illness in June last, at which time he was obliged to cease work because of progressive debility. His condition, however, did not appear to him to require medical aid until December; then, on examination, a tumor was found occupying the right hypochondrium and the epigastrium. A small nodule was to be felt to the left of the umbilicus; this growth was tender, but not painful, and it increased in size with considerable rapidity. No decided symptoms were experienced until within a month of death; then pain about the umbilicus began to call for remedies. Chloral was sufficient to give relief at first, but opium was resorted to as the distress increased in severity. The emaciation and weakness became extreme. Five or six days before death, very intractable nausea and vomiting supervened. There was no ascites or jaundice.

On examination, *post mortem*, the liver was found greatly enlarged, its weight being estimated at ten pounds. The organ occupied the whole hypochondrium. On its surface were several umbilicated nodules of encephaloid; and an inch beneath the surface was one large mass, the size of the fist. Discrete nodules of cancer were observed in both the large and small intestine. The kidneys were soft and friable and their pelves were filled with fat.

Dr. Fitz presented a *supra-renal capsule* in a state of cheesy degeneration. It had been removed from the body of a large, robust man, who died suddenly without any special history of disease. He had been about his business until the moment of death. The interest attaching to the specimen lay in the entire absence of pigmentation of the skin which is supposed to accompany caseous degeneration of the capsule in Addison's disease. The capsule of the opposite side was apparently normal.

Dr. Jackson remarked upon the fact of one renal capsule only being affected. He had an impression that, in all the cases that had been observed here, both the capsules were diseased; and it might seem that the absence of symptoms in the present case may have been owing to the healthy condition of one of the capsules, if the disease was not in some cases latent in one organ while degeneration is evident in the other.

Dr. Webber exhibited two *electro-chemical batteries* of the Drescher pattern. Their features of superiority as compared with other batteries were their portability, the simplicity of their mechanism and their permanency and durability. The facility of increasing the intensity of the current by adding, without shock, individual cells to any required number, was dwelt upon as an advantage. In other essential particulars, however, these portable batteries were considered as less valuable than those of Daniell, or others which, being permanent and stationary were adapted only to office practice.

Dr. Webber read the report of a case of *paralysis of the lower extremities* following a fall from a carriage. The paper will appear in this Journal.

Dr. Ellis remarked, with reference to cases like that reported, that he deprecated the use of the expression concussion of the spine or of the brain, so common in connection with a fall or a blow followed by prolonged or severe symptoms. In such cases, he considered the term concussion a loose and purely theoretical one; an expression of the ignorance of physicians concerning the true lesion. When paralysis or prolonged insensibility followed injuries of the head or spine, he believed there was something more than a concussion or "shaking up," and that there was probably a laceration or some similar lesion of central nerve-tissue. Concussion was applicable rather to the temporary stun often seen as the result of a blow.

Dr. Webber said that he had long believed that in such instances of injury followed by important nervous symptoms there was often a condition of capillary apoplexy. Any adequate knowledge, however, of the lesion to the nervous centres in the so-called cases of "concussion" largely depended on the microscope, and was not easily determined, even by that means.

Dr. B. Joy Jeffries reported a case of *traumatic rupture of the choroid coat of the eye*, following a blow on the forehead, and attended by loss of vision. The ophthalmoscope showed at the fundus a crescentic fracture of the choroid traversed by the retinal arteries and presenting the white, glistening, subjacent sclerotic layer. The loss of sight, though not complete, was hardly to be explained by this single lesion, and the rupture itself was remarkable as following a blow on the forehead instead of, as is usual in such cases, a direct violence to the eye.

Dr. Jeffries demonstrated his method of determining the limits of the field of vision in such cases by means of a blackboard, upon which is placed a frame containing a series of small wires arranged so as to divide the surface into squares to serve as a scale by which to mark the outline of the field of sight.

Dr. Wadsworth had seen a case of rupture of the choroid in which the crescentic fracture was very extensive. Sight in that case was much impaired, but was gradually restored.

Dr. Jackson showed a card-photograph of a girl of five years, who had begun to menstruate at fifteen months old, and had had the regular catamenial flow every two months since. The picture represented a remarkably mature facial expression, and a development of the mammæ sufficient for adult womanhood.

Dr. Bowditch alluded to a mistake made by a druggist in compounding a prescription, whereby a patient took for hæmoptysis a powder containing forty grains instead of five grains of powdered ergot. A violent emetico-cathartic effect followed, with relief to the hæmorrhage.

Dr. Williams called the attention of the Society to the fact that since the last meeting three of its members, physicians held in high regard by the profession and by the public alike, had died—Drs. Gordon, Forsyth and Morrill. He moved that a committee be appointed to present at the next meeting resolutions expressive of the sense of the Society with regard to the decease of the members alluded to.

The motion being adopted, the Chair appointed Drs. Williams, Wheeler, Jackson, Ware and Bowditch as the Committee.

Adjourned.

Selected Papers.

THE USE OF SULPHATE OF QUININE AS A SUBSTITUTE FOR ERGOT.

By Dr. E. Bouque. Translated for the Journal from the Annales de la Société de Médecine de Gand, 1872, by W. L. Richardson, M.D., Boston.

A new chapter is to be added to the history of quinine and its compounds. Dr. Angelo Monteverdi, Surgical Director of the Hospital in Crémone, in a recent work* containing many new ideas, derived from an extensive clinical experience, claims that these preparations possess a property whose existence has not till now been suspected. This property, according to this author, consists in its stimulating effect on the ganglionic nervous system, by means of which all the muscular fibres of the organs under its control (such as the uterus, bladder, intestines, &c.) contract physiologically or pathologically, according to the dose in which the drug is administered. This peculiar property of quinine is especially shown by its action on the gravid uterus. The contractions which it produces in this organ differ essentially from those which follow the administration of ergot. These latter are very powerful, succeeding each other with an increasing rapidity, till, between the contractions, there no longer exists any perceptible interval, the uterus remaining permanently contracted, oftentimes for more than an hour. The contractions which quinine, when properly administered, produces are entirely different. The pains in this case are perfectly physiological in character, and do not differ in the slightest from true labor pains. Their periodicity is identical; each pain commences feebly, increasing gradually in severity until it reaches its greatest intensity, and then as imperceptibly diminishing, it gives way to an interval of rest of longer or shorter duration, according to circumstances. This peculiar property of quinine has long been noticed, although observers have till now paid but little attention to it.

Forti, whose excellent researches on fevers and the various preparations of cinchona are even at the present day highly esteemed, quotes many cases of pregnant women who, being attacked by fever and treated by quinine, aborted. Puccinotti, an Italian author who wrote a history of a fatal epidemic of intermittent fever which prevailed in Rome during the years 1819, 1820 and 1821, gives the account of a woman, eight months pregnant, to whom quinine was given and who, a few hours later, gave birth to a living child. In the *Journal de Pharmacie et de Chimie* (October, 1845), Dr. Petit-Jean is represented to have said, with many of his associates, that in their section of the country, where intermittent fevers are endemic, quinine, administered to pregnant women, often produces abortion. Dr. Churchill, in his work on the *Diseases of Women*, alludes to a case reported by Dr. Davis, in which quinine was given to a woman five months pregnant, who was suffering at the time from an attack of tertian intermittent fever, and, according to Dr. Davis, the medicine produced an abortion.

All these facts, so important from a therapeutical point of view, are quoted by Dr. Monteverdi in his work already alluded to, and the writer, referring to his own experience, says that, in 1854, while in charge of a large medical district in the province of Crémone, he observed many similar cases. Since then he has noticed in his own private practice that a premature labor frequently followed the administration of quinine. With a view to explaining, if possible, this phenomenon, he set to work making experiments with the drug in question. From cases observed in his own practice and in that of his friends, he succeeded in collecting a valuable series of cases, which he gives in detail in the work referred to. The conclusions which he draws from these numerous experiments and observations are as follows:—

1. Sulphate of quinine succeeds perfectly in all cases where it has been administered to expel the placenta.
2. Given with a view to bring on suspended labor pains, or uterine action rendered inefficient through inertia, it has always acted successfully with one exception, and in that case ergot also failed.
3. In cases where ergot failed to produce uterine contractions, sulphate of quinine succeeded, and in a very marked manner.
4. The child was always born alive, except where the death depended clearly on some extraneous cause.
5. The patient experienced no unplea-

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* Dimostrazione di una nuova importantissima virtu medicamentosa della china, etc. Crémona, 1870.

sant symptom from the quinine, with the exception of some slight *tinnitus aurium.*

6. The sulphate of quinine gave these results when administered in the dose of one gramme (18·83 grains) in solution or powder, divided usually into three or four doses and given with succeeding intervals of half an hour, an hour and two hours.

7. Sulphate of quinine may be given at any time during the progress of the labor, and does not interfere with the subsequent use of instruments.

8. In cases of simple inertia the following prescription produced most favorable results, even when given before the complete dilatation of the os and rupture of the membranes :—

℞. Extrait de quinquina, 3 grammes.
Eau destillée de cannelle,
" " de citron,
Sir. d'écorces d'oranges, āā 30 grms.
Dose, a teaspoonful every half hour.

9. The uterine contractions produced by sulphate of quinine come on gradually within thirty minutes after the administration of the drug and last at least two hours, gradually increasing in intensity, with intervals of rest between each pain identical with those of true labor pains.

I have lately had an opportunity in my own practice of witnessing the effect of quinine given under the following circumstances :—

The patient was a small, stout woman, 36 years of age, of feeble constitution and of a temperament decidedly *lymphatique*. Her first pregnancy, which was before her marriage, ran a regular course, and terminated in a long and tedious labor, a dead child being extracted by forceps. Since her marriage, she has been eight times pregnant. The first child lived half an hour. The fourth was delivered by version, the child living ten weeks. The sixth, a hydrocephalic child, was delivered dead by forceps. The other pregnancies all ended prematurely before the seventh month.

At the date of my first visit (May 22, 1871), she had been pregnant a few days over six months. During this time, with the exception of some slight pain along the sacro-coccygeal region, she had experienced no unusual symptom. May 18th, she was suddenly seized with severe paroxysmal pain in the lower part of the abdomen, and extending through the upper part of the thighs. This was accompanied by a slight bloody vaginal discharge. She went to bed, and these symptoms gradually disappeared. From that time, she thought that the active movements of the child occurred less frequently, and very feebly. She continued to perform her usual household duties till the afternoon of the 22d, when the pains returned, this time accompanied by a copious bloody discharge. It was then that I first saw her. She was lying in bed, decubitus dorsal, apparently suffering great distress. Her face was pale, lips colorless, skin cold, pulse rapid and weak. The uterus gave no evidence of contracting. No pains had occurred since she went to bed. The vagina was filled with clots of such firm consistency as to prevent easy access to the uterus. By external palpation, no fœtal movements could be felt, nor could the fœtal heart be heard by careful auscultation. Rest and cold acidulated drinks were ordered. There was no further hæmorrhage, and the patient was soon able to sit up some hours without inconvenience. Towards the evening of the 30th, a copious, colorless discharge came from the vagina, continuing several minutes. The os was slightly dilated, the opening being perhaps half an inch in diameter, and across it lay the fœtal head. On pressing back the presenting part of the child, some greenish black fluid escaped, which, from its odor, I recognized as meconium. The fœtal movements had ceased, and no fœtal heart could be heard. The uterine contractions became weaker and weaker, notwithstanding the friction which I kept up over the uterine tumor. When these contractions finally ceased, a pretty sharp hæmorrhage began. Twenty drops of laudanum were given, and cold applications were made externally. In about twenty minutes, and after she had taken forty drops of laudanum, the flowing ceased.

The next day, I found her about the same, although, of course, somewhat weaker from the loss of blood. She had had no further pain. The abdominal walls were flaccid, the uterus relaxed and showing no tendency to contract. June 3d, another hæmorrhage occurred. The treatment of the 30th was repeated, and the flowing ceased.

It was evident that the child was dead, and therefore I determined to resort to active measures for hastening its expulsion. If left to nature, it seemed liable to remain and become a source of danger to the mother, since putrefaction was liable to begin at any moment.

At 7 o'clock in the evening, I gave her four grains of the sulphate of quinine. At 9 o'clock, the dose was repeated. Towards 1 o'clock, the pains began to return. At first they were weak and fugitive, but almost imperceptibly they grew stronger. The os gradually dilated. The head slowly advanced. The contractions exactly resembled those observed during natural labor. They came on regularly, lasting two or three minutes, and then giving way to an interval of complete relaxation. The child, which was putrid, was born at quarter past 11. The placenta was removed without the slightest difficulty a few moments later. The uterus immediately contracted firmly. The patient made a quick recovery and is now well.

In a science so uncertain as medicine, it is necessary to exercise great caution in the reception of new ideas. A fact which has been noticed by only two or three observers cannot be admitted as established beyond a question without our running the risk of its being disproved a few days later by other observers just as accurate and reliable as ourselves. The case which I have reported does not seem to me to allow of being explained as a simple coincidence. For thirteen days, there had been no signs of labor. Within six hours after the administration of the quinine, the labor pains returned and continued without interruption until the fœtus was expelled.

My experience, coinciding most strikingly with that reported by M. Monteverdi, seems to me to warrant my calling the attention of obstetricians to this new property of sulphate of quinine, and to express the hope that others may at least give it a trial in order that the statement of the Italian physician may be either confirmed or disproved.

Medical and Surgical Journal.

Boston: Thursday, May 2, 1872.

AN EFFECTIVE AND READY METHOD OF VENTILATING SICK ROOMS.

The proposal by the Massachusetts Medical Society to award a prize for an essay on an effective and ready method of ventilating sick rooms—one that could be put in operation at once, at the moment needed, with least difficulty and expense called for—elicited, among others, the paper by the unknown author *x. y. z.*, which was adjudged worthy the prize.

The essay starts with the general principles that air, in full amount and of good character, is essential to the maintenance of life, that actual drafts and chills must be avoided as being depressing agencies, that cleanliness of person and of apartments are requisite, and that, especially, the rays of the sun should have opportunity to enter the sick room as much as possible. Chill is the great dread of the nurse, and the same dread is expressed by the physician under the term draught. But the problem is how to get the fresh air without at the same time incurring the chill or the draught; the answer is given in the words of the essayist—by a constant, general, moderate movement of air of proper temperature which is safe both day and night.

The author of the essay proposes to attain the desired end by lowering the upper and raising the lower sash of the window a few inches, and in order to avoid the draught which would be consequent on such an arrangement, he suggests the following device:—

"Fit into the window frame, near the bottom of the window, a thin piece of board six or eight inches wide and long enough to reach from side to side of the frame. Two pieces of clap-board fastened together by their thin edges make a board which is light, easily obtained, and, although not so neat, answers well. Push this piece of wood close up to the sash, but not so close as to prevent its proper up and down movement. Secure it in its place by a wedge, or in any other more substantial manner, so that it may be turned up and down as on a hinge next the sash. * * * If the opening is directed downward and the sash raised (never above the upper edge of the board), the entering air will go towards the floor. It is a fact easily demonstrated, that air striking a surface does not rebound from it like an elastic body, but moves parallel to the surface and diffuses itself along it. Air entering in the manner here described soon reaches the floor and gradually displaces the air above it until it fills the room, and this without perceptible draught to a sick person in bed. If the same board be placed with its lower edge upon the window-sill inside the sash and against the frame, leaving a space between the board and the sash, the entering current will have a movement directly upward; it will also enter between the sashes with the same direction. This is the proper arrangement when the patient is sitting up.

"To the upper sash, a similar board

should in the same way be fitted, also movable, with the opening turned obliquely upward. Air entering at the top of the window then strikes the ceiling along which it moves, is diffused, and all draughts avoided. This arrangement does not prevent the escape of air at the same place, if the current is in the opposite direction. 'Millinet' or other open material may be secured to either board or to the sash, to break the force of the current or to prevent the entrance of rain, insects or dust. A piece of cloth fastened to the lower edge of the lower board will lead the entering air along the wall as directly to the floor as may be desired. Triangular pieces of paste-board, nailed to the ends of the ventilating boards, will give the air a more definite direction. If the windows have no outside blinds, a board, like that described, outside of the sash, directed downward, effectually excludes rain.

Fig. 1.

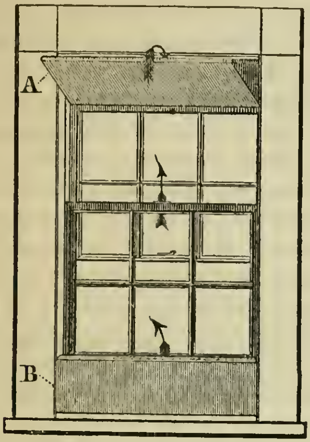

Fig. 1.—Window as seen from within. A and B, ventilating boards in position. The lower board directs the air to the floor, the upper board turns the air upward and diffuses it.

Fig. 2.

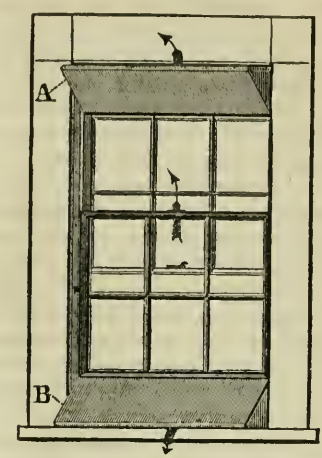

Fig. 2.—Ventilating boards, so arranged that the air is turned directly upward.

"By this method air can be made to sweep along the ceiling and along the floor, or in any other direction, without affecting unpleasantly a patient in bed or sitting up. The strength of the current is easily controlled by raising or lowering the sash. * *

"When the wind, instead of blowing against the window, is moving parallel to the wall of the house, it is often difficult to secure a current of air into the room. This difficulty can frequently be overcome in the following manner. Take a piece of board sixteen or eighteen inches long and eight or nine inches wide, place it on the sill edgewise against the window frame and let it project beyond the window, and so fasten it that it shall be turned obliquely towards the wind. Then shut the sash down upon the edge of the board, and the wind will be directed into the room. A similar board placed at the top of the window and turned from the wind, will aid in discharging the air from that part of the room. The efficacy of these boards may be increased by nailing strips of board on each of the two horizontal edges. They form, when thus arranged, a kind of wind-sails, and can obviously be combined in the same window with the boards first described. * * * * *

Fig. 3.

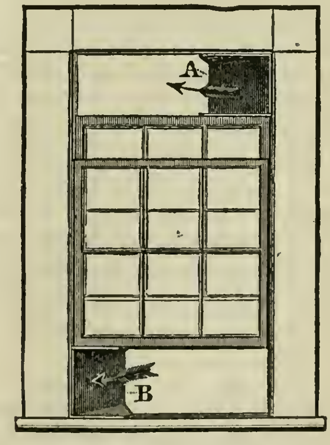

Fig. 3.—Deflecting boards to direct fresh air into the room at the bottom, and vitiated air out of the room at the top.

"The question often comes up, Is it safe to admit the *night air?* In certain malarious districts it may not be, but in all other cases sufficient air to keep the room fresh is always safe. Fresh night air will always be safer than night air contaminated with animal effluvia. Patients are no more liable to take cold by night than by day. Doubtless the temperature tends to fall in the absence of the sun and by the admission of colder air, but this can always be counteracted by increased fuel and, if need be, diminished ventilation. * * * * *

"The proper temperature of a sick-room may be assumed to be 68° to 70° Fahr. Generally, the temperature agreeable to attendants out of bed, is quite warm enough for a patient in bed. Throughout some diseases the heat-making power is diminished; in most febrile diseases, during some part of the twenty-four hours it is diminished. A 'fever turn' consists of a chill, then a hot turn followed by sweating. After this there is frequently a state of exhaustion, both of strength and heat, requiring care. During a tedious convalescence from typhoid fever, and in many other diseases, after the fever is gone, the temperature falls towards morning, and the weak require food and warmth. Cases, especially among the aged, are unquestionably lost for want of attention in this respect. Piling on clothes does little or no good; raising the temperature of the room does not meet the case; what is wanted is the immediate, direct application of heat by warm stimulating drinks, warm bottles to the feet, or, better still, warm blankets that envelope both feet and legs, and warm cloths to the 'pit of the stomach' frequently renewed. The object is not only to prevent the loss of heat, but also, what is more important, to supply from without that necessary heat which the body is too weak to make."

We wish we had space to give the essay in full, for it abounds in suggestions of value which should be household words in every family. The essay will be widely circulated, in accordance with the wish of the author that the money to which he was rightfully entitled should be used for this purpose.

Charlestown Free Dispensary.—A number of benevolent persons in Charlestown have recently organized a dispensary for the care and treatment of the poor. The institution has occupied rooms at 21 Harvard Square, which will be opened after the first of May on Mondays, Wednesdays and Fridays, from 10 to 12 o'clock, A.M. Dr. Henry Lyon has been elected President of the Dispensary, B. F. Stacey Treasurer, and G. Wyman Secretary. The medical staff consists of Drs. E. J. Forster and J. J. McCarthy, Surgeons; and Drs. J. G. Dearborn and J. A. McArthur, Physicians.

The Toner Lectures.—Dr. J. M. Toner, of Washington, has transferred to the Secretary of the Smithsonian Institution, the Surgeon-General of the Army and of the Navy and the President of the Medical Society of the District of Columbia, *ex officiis*, and to their successors, a certain amount of property, in trust, for the establishment of a course of lectures; they are to be delivered as is stated in the deed of gift, a portion of which we give.

"Whereas the said party of the first part [Dr. Toner], believing that the advancement of science—that is, a knowledge of the laws of nature in any part of her domain, and particularly such discoveries as contribute to the advancement of medicine—tend to ameliorate the condition of mankind, hath determined to convey and transfer to the said parties of the second part, and their successors, forever, in their several official positions as aforesaid, the hereinafter described real and personal property, amounting in value to about $3,000, 90 per cent. of the interest of which is to be applied for at least two annual memoirs or essays by different individuals, and, as the fund increases, as many more as the interest of the trust and revenue will in the judgment of the trustees justify, relative to some branch of medical science, to be read at the city of Washington at such time and place as the said parties of the second part and their successors as trustees may designate, under the name of 'The Toner Lectures;' each of these memoirs or lectures to contain some new truth fully established by experiment or observation, and no such memoir or lecture to be given to the world under the name of 'The Toner Lectures,' without having first been critically examined and approved by competent persons selected by said trustees for that purpose.

"It is further provided that such of the said memoirs or lectures as may be approved shall be published in such manner and through such channels as said trustees may determine."

We learn that the trustees named have met and formally accepted the trust, and assumed the management of the fund conveyed by Dr. Toner. To give effect to the donation, they have organized themselves into a board, of which Prof. Joseph Henry is President, and Dr. J. M. Toner Secretary and Treasurer. The trustees are, therefore, now ready to receive communications or letters relative to the production of memoirs, under the auspices of this trust, from physicians and scientists engaged in original investigations, the dissemination of which is calculated to advance medical science.

GASTRIC JUICE IN THE TREATMENT OF CANCER AND SYPHILIS.—Occasional reference has been made in the medical periodicals to the escharotic, antiseptic and alterative powers of gastric juice when applied topically to malignant growths. The subject does not appear to have received the attention at the hands of surgeons which it deserves, the chief obstacle in the way of more extended experiments being, without doubt, the difficulty in obtaining a sufficient supply of the agent alluded to.

In the *Clinic* for February 10th, may be found a report of a series of experiments conducted by Dr. Stöhr, of Würzburg. The investigations were made with gastric juice obtained from the stomachs of dogs, either by the establishment of fistulæ or by first killing the animal and opening the stomach without delay; the juice was also secured from owls and crows by the introduction of sponges into the œsophagus.

The application of this juice to the ulceration was made either by the use of a brush or by pledgets of cotton kept saturated. Experiments were performed upon primary syphilitic ulcers (both chancre and chancroid) and upon cancer. Very little pain attended the application. Examination of the sore three or four hours after the treatment showed upon the surface a layer of grayish-white, semi-transparent tissue of gelatinous aspect, moderately adherent; this layer thickened after the repetition of the application, and there was developed, after a few days, a decided tendency to healthy cicatrization.

The author thinks the gastric juice is, in a certain sense, a caustic; it digests the tissues to which it is applied, transforming them into pepsine. It acts upon the unhealthy ulcerations and quickly supplants a phagedenic sore by luxuriant granulations.

The pepsine as found in the shops may be utilized for local applications by dissolving one part in one hundred parts of distilled water, with one drop of hydrochloric acid and about five grains of common salt to the ounce of the solution. This artificial gastric juice is, however, inferior to the natural product.

DIGITALIS AN ANAPHRODISIAC.—M. Gourvat is publishing, in the *Gaz. Med. de Paris*, a series of papers on the action of digitalis. In a late number (Dec. 23d, 1871) we find the following:—"When digitalis or digitaline is administered for some time to a man in full possession of sexual powers, the latter become gradually weakened, the propensities disappear, the liquor seminis diminishes by degrees, and may at last vanish altogether. These results are explained by the antiplastic and lowering action of digitalis. The antiphlogistic properties of the drug are the secret of its good effect in spermatorrhœa. With women, digitalis and digitaline excite strong, regular and intermittent uterine contractions, and control metrorrhagia; hence digitalis is employed in exciting abortion. (Tardieu.) It is probable that digitalis acts as an anaphrodisiac in women also, inducing, by long-continued use, impotence and sterility. In men it hinders the secretion of the liquor seminis, and in women it may interfere with the development of the Graafian vesicles, the propagation of the species being thus doubly retarded."—*Lancet*, Jan. 13, 1872.

THE LONDON WATER-SUPPLY.—The people of the British metropolis appear to be considerably exercised concerning the water which is supplied to them for drinking and for other domestic purposes. The anxiety is not concerning the quantity of the supply, as was recently the case with our own city, but the filthy quality of the Thames river-water is becoming unendurable, containing as it does an abundance of impurities, the washings of dirty London air and of dirtier surface drainage.

Medical Miscellany.

Middlesex North District Medical Society.—At the annual meeting of the Society, the following appointments were made. *President*, Gilman Kimball, M.D., of Lowell. *Delegates to the American Medical Association*, Drs. J. H. Smith, J. H. Gilman, and F. C. Plunkett, of Lowell, J. M. Stickney, of Pepperell, Charles Dutton, of Tyngsborough, and G. A. Munroe, of Billerica.

Berkshire District Medical Society.—The following officers were elected at the annual meeting held at Pittsfield on the 24th ult. *President*, F. K. Paddock, M.D., of Pittsfield ; *Vice-President*, Lewis Miller, M.D., of Stockbridge ; *Secretary*, J. F. A. Adams, M.D., of Pittsfield ; *Treasurer*, Henry Eastman, M.D., of Pittsfield ; *Commissioner on Trials*, A. M. Smith, M.D., of Pittsfield.

Walker Society for Medical Improvement.—A number of the regular practitioners of Charlestown and neighboring cities have united themselves into a Society, under the above title, for the promotion of medical science and for the cultivation of confidence and good feeling among the members of the profession in the vicinity. The officers are as follows: *Secretary*, Dr. E. J. Forster, of Charlestown; *Treasurer*, Dr. C. A. Holt, of Chelsea ; *Prudential Committee*, Drs. G. H. W. Herrick, of Charlestown, N. J. Knight and Horace Chapin, of Somerville.

The annual meeting of the Association of Medical Superintendents of American Institutions for the Insane will be held at Madison, Wis., during the last week in May.

Association of American Medical Editors.—This organization will hold its third anniversary meeting in Philadelphia, Monday, May 6th, 1872. The members will assemble for the transaction of business at 11 o'clock, A.M., and the President, Dr. B. F. Dawson, of New York, will deliver the annual address at 8 o'clock in the evening. The meetings will probably be held in Horticultural Hall, on Broad Street.

F. H. Davis,
Sec'y of the Association.
Chicago, April 24th, 1872.

A Novel Charity.—A gentleman near Manchester, England, has left the whole of his large residual estate for the foundation of a charity for the relief, at their own homes, of persons suffering from severe bodily or incurable diseases. The trust expressly stipulates that no part of the money shall be devoted to the purchase of land or buildings, or for the erection of buildings of any sort; and no person is to have more than £20 per annum. This charitable gentleman evidently has little sympathy with a system of hospitalism which treats invalid humanity by wholesale and breaks up all the ties of home relationship for the time being.

To Correspondents.—Communications accepted:—A Case of Gun-shot Fracture of the Femur.—Three Cases of Vaccination from a Syphilitic Subject.—A Method of discovering and correcting Astigmatism.—Cotton Wool as a Surgical Dressing.—A case of Recurrent Variola after a short Interval.—Erysipelas in connection with Vaccination.

Books Received.—Science Primers. Chemistry by H. E. Rosco, Professor of Chemistry in Owens College, Manchester. New York: D. Appleton & Co. 1872. Pp. 103. (From A. Williams & Co.)—Science Primers. Physics by Balfour Stewart, Professor of Natural Philosophy in Owens College, Manchester. New York: D. Appleton & Co. 1872. Pp. 135. (From A. Williams & Co.)—The Physiological and Therapeutical Action of the Bromide of Potassium and Bromide of Ammonium. By Edward H. Clarke, M.D., and Robert Amory, M.D. Boston: James Campbell. 1872. Pp. 178. (From the Publisher.)—Dr. Rigby's Obstetric Memoranda. Fourth Edition. By Alfred Meadows, M.D. Philadelphia: Lindsay & Blakiston. 1872. Pp. 104. (From A. Williams & Co.)—Worms. A Series of Lectures on Practical Helminthology. By T. Spenser Cobbold, M.D., F.R.S. Philadelphia: Lindsay & Blakiston. 1872. Pp. 187. (From A. Williams & Co.)—The Irritable Bladder; its Causes and Treatment, including a Practical View of Urinary Pathology, Deposits and Calculi. By F. Gant, F.R.C.S., Surgeon to the Royal Free Hospital. Third Edition. Philadelphia: Lindsay & Blakiston. 1872. Pp. 221. (From A. Williams & Co.)

Died,—In New York, 22d ult., Jos. H. Foster, M.D.

Deaths in eighteen Cities and Towns of Massachusetts, for the week ending April 27, 1872.

Cities and Towns.	*No. of Deaths.*
Boston	131
Charlestown	12
Worcester	32
Lowell	18
Milford	8
Chelsea	8
Cambridge	17
Salem	14
Lawrence	4
Springfield	10
Lynn	15
Gloucester	5
Fitchburg	4
Newburyport	4
Somerville	3
Fall River	16
Haverhill	8
Holyoke	5
	314

Prevalent Diseases.	
Consumption	59
Pneumonia	37
Scarlet fever	11
Measles	10
Erysipelas	9
Smallpox	8

The deaths from smallpox were as follows:—Five in Boston, two in Holyoke and one in Milford. Of the deaths from measles eight were in Worcester.

George Derby, M.D.,
Secretary of State Board of Health.

Deaths in Boston for the week ending Saturday, April 27th, 131. Males, 67; females, 64. Accident, 1—apoplexy, 4—amputation of thigh, 2—bronchitis, 5—inflammation of the brain, 2—congestion of the brain, 2—disease of the brain, 10—cancer, 2—consumption, 23—convulsions, 1—debility, 7—diarrhœa, 1—dropsy, 1—diphtheria, 2—erysipelas, 4—scarlet fever, 4—typhoid fever, 2—disease of the heart, 3—intemperance, 3—disease of the kidneys, 2—laryngitis, 1—congestion of the lungs, 6—inflammation of the lungs, 12—marasmus, 4—measles, 2—mortification, 1—old age, 5—paralysis, 4—pleurisy, 1—premature birth, 3—puerperal disease, 3—rheumatism, 1—scrofula, 1—smallpox, 5—whooping cough, 1—unknown, 2.

Under 5 years of age, 46—between 5 and 20 years, 12—between 20 and 40 years, 28—between 40 and 60 years, 22—above 60 years, 23. Born in the United States, 98—Ireland, 28—other places, 5.

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Original Communications.

THE EFFECT OF MENSTRUAL DISORDERS UPON THE VASCULARITY AND NUTRITION OF THE INTRA-OCULAR STRUCTURES.

By Reuben A. Vance, M.D., New York City.

The careful observation of the intra-ocular structures with the ophthalmoscope, continued at short intervals for a certain length of time, will in certain cases reveal phenomena of great interest, both in a physiological and pathological point of view. This is especially true when the patients are women and the observations extend over such epochs as pregnancy and lactation, or menstruation and the climacteric period. We have then an opportunity of watching the effect upon the cerebral circulation of those bodily states which are notoriously competent to induce changes in the mental tone of the individual, and which, in certain cases, cause a most distressing form of insanity.

The phenomena of menstruation may be attended by disordered vision, and it is possible that such visual disorders are due to the general commotion to which the female organization is subjected at this time, yet such cases are rare; and Dr. T. Clifford Allbutt, of Leeds, in his recent work, says that he has never been able to satisfy himself of their existence.* I have seen a number of cases in which photophobia and dimness of vision were complained of at the monthly periods, in which the ophthalmoscope did not reveal any disorder of the intra-ocular structures, and others again where hyperæmia of the disk and retina to a very marked degree, occurring at the same time, was unattended by any defect of vision.

In very many cases the menstrual epoch is attended by great mental depression and occasionally by extreme bodily suffering. The mental vagaries, curious conceits and unnatural ideas and desires then developed are as diverse as the pains and aches which, at such times, are so commonly complained of by different patients. It will frequently happen that the peculiar tendency of the individual will then be developed, and an opportunity is thus afforded of learning more of the mental characteristics of a woman by a careful observation of her remarks and attention to her conduct during this period than at any other time. The details of a case which I presented in outline to the Medico-Legal Society of this city in December, 1871, and which was the subject of a memoir read before the Medical Journal and Library Association March 8th, 1872, illustrates this fact very clearly. A young woman who became the victim of morbid desires and vicious impulses at each menstrual period, but who was in perfect mental and physical health at all other times, gave no other evidence of cerebral disorder than such as was revealed by the ophthalmoscope. While such peculiarities of disposition and conduct as were exhibited by this patient are among the rarities of medical experience, it is to be borne in mind that the physical state which initiated them in this case is very commonly induced by that peculiar condition of the system which occurs in connection with the phenomena of menstruation.

The ophthalmoscopic appearances in the majority of cases in which symptoms referable to the cerebro-spinal system have been observed, are such as denote an increase in the quantity of blood in the intra-ocular structures. The retinal circulation is affected, but not to the same extent as that of the disk. The vessels of the latter are enlarged and their number increased. It may even assume a crimson appearance, and I have occasionally seen it so congested that the whole fundus oculi appeared of a uniform color and the site of the papillæ could only be discovered by tracing the retinal vessels to their point of convergence.

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* Allbutt, On the Use of the Ophthalmoscope in Diseases of the Nervous System and of the Kidneys; and also in certain other General Disorders. London: Macmillan & Co. 1871.

The arteries of the retina may be but slightly affected—as a rule they are not enlarged to any great extent—but the veins are increased in size and number, and their course becomes irregular and tortuous. It is the proper vessels of the disk which undergo the greatest change, and the chief evidences of congestion will be observed at the intra-ocular termination of the optic nerve.

In a small proportion of cases, yet cases in which the cerebral symptoms are of the same nature and equally severe with those of the former class, the ophthalmoscopic appearances are directly the reverse of those just described. Instead of hyperæmia of the disk and retina, we find an anæmic state of the intra-ocular structures. The lateral vessels of the disk disappear; the retinal arteries and veins are much smaller than in health—the former sometimes diminishing to a mere line; many branches previously visible now disappear from view, and the disk presents a clear, bloodless aspect through which the openings in the lamina cribrosa can be plainly seen.

The proportion of cases in which intra-ocular congestion can be observed at the menstrual period is quite large, but the number of instances is small in which the ophthalmoscopic appearances of hyperæmia persist during the whole time the woman is unwell. In many cases where ladies suffering from menstrual irregularities have been under my care for disorders of the nervous system it has been possible to pursue ophthalmoscopic observations for a length of time, and not only to see the intra-ocular appearances during the time they were menstruating, but also during the intervening period. Two well-defined classes can be distinguished: one in which the irregularities of the intra-ocular circulation lasted but a short time, and were apparent only at the commencement of menstruation; another, in which that came on a day or two before the flow manifested itself, persisted during its continuance, and lasted a variable time after it ceased. The first class suffered more or less pain at the time these appearances were noticeable, but presented no abnormal nervous symptoms; the other class complained of mental depression, obscure nervous phenomena and pain in the back and thighs.

Cases characterized by anæmia of the intra-ocular structures pursue much the same course and present many of the symptoms observed in cases of congestion persisting throughout the menstrual period. An ophthalmoscopic examination alone can distinguish between them and determine in a given case whether the cerebral symptoms complained of are due to hyperæmia or anæmia of the brain.

There seems to be no causative relation between the amount of blood discharged and the state of the cerebral circulation. An excessive flow may coincide with an extreme degree of intra-cranial hyperæmia, while all the evidences of intra-ocular anæmia may be present in cases where the menstrual discharge is unusually small. The most satisfactory solution is found when we consider the connections and functions of the sympathetic nervous system. It is a well-known fact that an irritation applied at one part of the sympathetic may manifest itself as an alteration of the structure or functional activity of organs but remotely connected with the nervous branches subjected to experiment. The phenomena most apparent are changes in the vascular supply of the part upon which the irritation is reflected, and these changes are of the nature of anæmia and hyperæmia. It is not impossible that some modification of the molecular structure of the tissues is produced primarily to which the hyperæmia or anæmia is secondary. Be that as it may, in a therapeutical point of view it is of the utmost importance to determine which anatomical condition is present, for the treatment appropriate for the one is very detrimental to the other. This is especially so with respect to the brain, for cerebral symptoms almost precisely similar are produced by either hyperæmia or anæmia. The manner in which certain morbid conditions of the uterine organs produce modifications of the cerebral circulation is inexplicable upon any other hypothesis, while the clinical fact that such changes are produced, especially in certain menstrual derangements, is susceptible of demonstration by any one who will take the trouble to investigate the subject with the ophthalmoscope.

The mental symptoms due to the deranged nutrition of the brain so produced are manifold, and vary from the merest excitability of manner to the most furious mania; from slight depression of spirits to extreme melancholia, and in more than one case I have known the whole character of the individuals so changed as to lead to the commission of the most vicious and disgusting acts. It is in this latter respect that these cases acquire importance in a medico-legal point of view, and no expert can form an opinion entitled to any weight who has not carefully examined the patient with the ophthalmoscope before, during and after her menstrual epoch. In this manner, and in this manner alone can the physical condition of the intra-cranial organs, as regards these secondary vascular changes, be determined, and a basis of fact acquired upon which to found a rational opinion as to the responsibility or irresponsibility of an accused person.

ERYSIPELAS IN CONNECTION WITH VACCINATION.

By Joseph Garland, M.D., Gloucester.

In answer to inquiries made by the profession, in reference to the appearance and conduct of erysipelas in connection with vaccination, at Gloucester, during the months of January, February and March of the current year, I offer the following paper, giving in detail, as far as practicable, those cases that came under my observation and within my knowledge during that period.

Case I.—Infant child of Mr. C. P., æt. 6 months. Vaccinated by Dr. H. E. Davidson Jan. 2, 1872, with virus from arm of its cousin, infant child of Mr. W. A. P., which child was vaccinated by Dr. Charles H. Hildreth. Both children were considered very healthy, and their vaccinations progressed favorably, the child vaccinated by Dr. H. meeting with no trouble whatever, the vaccination terminating in the usual healthy way. But the former child, vaccinated by Dr. D., was attacked with erysipelas Jan. 28th, twenty-six days subsequent to the insertion of the virus. The vaccine vesicles were perfect. Lymph was taken from them at the proper time, and they had resulted in well-formed scabs or crusts. These had fallen, leaving the surfaces unhealed. In the vicinity of these spots, erysipelatous inflammation started, spreading upwards and downwards upon the arm and fore-arm, until the whole limb was involved. It appeared next upon the opposite shoulder, thence spreading down over right arm and across back and upper chest. The disease disappeared in about two weeks, patient recovering perfectly.

This was the first appearance of the disease in this child, and it is not apparent that the parents of the child had ever suffered from it, although the progenitors, on the father's side, are well known to have suffered severely from erysipelas.

Case II.—A. P., laborer, aged 50 years, was re-vaccinated by Dr. A. S. Garland, Feb. 5, with virus from a healthy infant child of Mr. W. (with virus from which child twenty-eight others, adults and children, were vaccinated or re-vaccinated, with no subsequent ill effects). On Saturday, the day immediately succeeding his re-vaccination, Mr. P. was out in a severe snow-storm, at work. On the evening of the same day, he complained of chills, headache and soreness of limbs, soreness of muscles under the left arm, but no severe pain. Sunday, no better. Considerable nausea, some vomiting. On Monday, I was called to see him and found patient much prostrated. Tenderness in left axilla. No swelling or redness of skin. Complained of stiffness about the shoulder and lameness upon motion of arm. The points of vaccination were simply a little irritated, and surmounted by slight, half-dried scabs—no redness, swelling or other indications of inflammation around them or upon the arm. Tuesday morning, Feb. 6th.—A slight redness of skin was discovered under the left arm near axilla, and extending forward a little over pectoral muscle. The case was pronounced erysipelas. Patient prostrated. Pulse frequent and weak; headache and nausea still continuing. Wednesday.—A dusky redness of skin with considerable tenderness extending from axilla down left side to sixth rib was apparent. Constitutional symptoms worse. Thursday.—Some œdema and a slight boggy feel extending from axilla over side down to sixth rib, accompanied by great prostration of strength, a rapid and feeble pulse, and an anxious expression of countenance. The inflammation spread no farther upon the chest than a line drawn from middle of clavicle down through nipple of left side, and but slightly beyond the posterior margin of axilla directly down on the side to the sixth rib. The arm was not involved at all, not even the faintest redness or swelling being observable upon it. Though apparently so limited in extent, the effect of the disease upon the patient was alarmingly depressing, considering the short time it had been in progress. In fact, strength and nervous energy were so far exhausted, it was not deemed practicable to make extensive incisions. Dr. Hildreth, in consultation, confirmed the opinion. Death occurred on Friday, Feb. 9th, just one week from date of vaccination.

It is worthy of observation that this patient had been subject to attacks of erysipelas, both in hands and feet, at various times previous to this sickness—that his constitution was enfeebled, and that he was subjected to severe exposure, in inclement weather, on the day just preceding the attack.

Case III.—Child of J. B. P., aged 5 months. Vaccinated Feb. 1, by Dr. A. S. Garland, with virus from a perfect vaccine vesicle on a healthy child (25 other patients vaccinated or re-vaccinated from same child, and no case of erysipelas out of the number). The day after vaccination, an erysipelatous patch appeared upon the forearm. Vaccination did not take at all, the vaccinated points drying up at once, never giving rise to vesicle or areola. This case lasted but a few days, the erysipelatous inflammation being confined mostly to forearm and hand. Predisposition not ascertained.

Case IV.—Child of Mr. I. S., aged 2 years. Vaccinated by me Feb. 1, with lymph from a perfect vaccine vesicle on the arm of a healthy Irish child, selected by me, in preference to many others, as most suitable to afford reliable virus. Feb. 5th.—Was called in haste to the child in a convulsion. Upon arrival, found convulsion had ceased, but patient was sick at stomach and very feverish. Upon inspection of arm, observed the vaccine vesicles just rising, and around them, on outer arm, reddish spots, mottling the skin, of pronounced erysipelatous look. This case progressed to a favorable termination, the whole of that limb only being involved. The disease lasted about two weeks—recovery perfect.

Case V.—Child of Mr. E. H., Jr., aged 20 months. Was vaccinated by me at the same time and place, and with the same virus as the child above, Case IV. Was seized with a convulsion on the sixth of February, just one day later than the other child. Erysipelas developed upon the arm, following the same course precisely as in the case above, and terminating in recovery in about twelve or fourteen days. These children mentioned in the last two cases were cousins. The father of child, Case IV., had erysipelas when a boy, and others in the family are subject to the disease. The parents of child in Case V. have not had attacks of the disease in person, though it is clearly traceable, both on the father's and mother's side of the family.

Case VI.—This was a nursing babe, about 8 months old. Vaccinated by myself Feb. 2, in connection with three other children; the father, mother and one child were re-vaccinated at the same time. All were vaccinated with virus from a healthy child 2 years old, no erysipelas having been known upon him before or since his vaccination.

This case was very severe. Feb. 7th, the fifth day of vaccination, upon appearance of the vesicle, the child was seized with convulsions, followed by nausea, vomiting, heat and general redness of the skin. Erysipelas appeared upon the arm in the vicinity of the points of vaccination, and spread rapidly up and down the arm to shoulder; then across the back to right shoulder, down right arm, down back, chest and over abdomen, finally fading away upon the thighs. After tedious sufferings, lasting more than three weeks, the child recovered.

Case VII.—One of the other children of the same family, vaccinated at the same time as the above, had a mild attack of erysipelas upon the arm and fore-arm, lasting from the twelfth to the seventeenth day after vaccination.

The family tendency to erysipelas is noteworthy in these last two cases. The father had suffered from the disease several years since, and has recently had a severe attack upon the face and head. The mother clearly gives evidence of it in her system, and her mother and one sister are subjects of it.

Case VIII.—Child aged 4 months. Parents residing one mile distant from residence of family just alluded to in Cases VI. and VII. Vaccinated by Dr. Davidson January 6th. Vaccination appeared to progress to a favorable termination, the crusts maturing and falling off, leaving the arm healed. Feb. 6th, a little more than four weeks after insertion of the virus, erysipelas appeared upon the right ear. I visited the child Feb. 7th, and found erysipelas upon the ear and right side of the face. The disease spread over the whole face and scalp, lasting about twelve days. The child recovered perfectly.

This case, it will be observed, was but one week further removed from date of vaccination than Case I. The point of development, however, differed materially. In this case we find a mother and maternal grandfather, both of whom had recently suffered from attacks of erysipelas.

Case IX.—Child, 2 years old. Vaccinated by myself Jan. 26th. Taken very sick Feb. 8th, the thirteenth day after her vaccination. On being called, I found patient very sick, with vomiting, heat and restlessness. Upon inspection, the arm was found red in the vicinity of the dried or drying scabs. On making inquiry, I learned that the child had erysipelas upon the corresponding leg last summer. Though the seizure was violent, inflammation lasted but a few days, rapidly spreading over the whole limb superficially, and then passing off.

This child was vaccinated on the same day and in the same family with two other children of different parents, and with virus from the same vesicle which afforded quills for them. These latter children were entirely exempt from ill effects; their vaccination was perfect and undisturbed.

Case X.—Child, 13 months old. Vaccinated by me Jan. 29th. Was seized with a slight convulsion Feb. 9th, twelfth day after vaccination. Being called, I found the child recovered from convulsion, but, as in the other cases mentioned above, heat succeeded, accompanied by more or less vomiting. The vesicles upon the arm had matured, and were scabbing. Patches of redness were visible upon the arm, evidently erysipelatous. These coalesced, spread down upon the arm, fore-arm and hand, and up upon the shoulder, and after continuing a few days, not materially affecting the child, disappeared, leaving the vaccination undisturbed and the patient quite well. A brother of this child, a year and a half older, was vaccinated on the same day and with lymph from the same source, but no indications of erysipelas whatever appeared.

As to predisposition in this last case, it is not so clear as in the other cases cited, the parents not being aware of the disease at any time, in themselves or their parents, though rather suspicious that an uncle on mother's side was subject to it.

Case XI.—This, the next and last case, occurred in the person of Mr. J. A., caulker, aged 55 years. He was re-vaccinated by me Friday, Feb. 2d. He had had primary vaccination thirty-five years before. Friday evening, Feb. 9th, complained of chilliness and soreness of limbs. Saturday, had headache, pain and soreness of limbs and back, catarrhal affection of head and throat. Obtaining no relief from domestic remedies, he sent a messenger for me Sunday morning. I found him as above described, and, in addition, with soreness of muscles of left arm, and in axilla, considerable cough, and with the throat and nasal passages much obstructed. I was told he was at work, on the Thursday and Friday preceding, under the bottom of a vessel all cold and wet, just hauled upon the railway from out of the dock. He said his arm felt lame and sore, but not painful. Upon inspection, I found scabs nearly dry upon the two places where virus was introduced, with areolæ slightly red, but quite limited. Upon anterior aspect of the arm, along the biceps muscle, there was a dusky red appearance of skin, extending a little below the elbow over outer and upper part of forearm. Already too familiar with the disease, I could not fail to see its threatening character. Remedies seemed to arrest the disease for the first twenty-four hours, but at the end of the next twenty-four hours the whole limb was involved in intense inflammation, the cuticle being almost completely vesicated. The last part of the arm to be affected was that within the circle of vaccination. Despite all efforts, deep phlegmonous inflammation, with suppuration of nearly all the cellular tissue of the limb, followed. Free incisions were made. Extensive sloughs removed. The strength of the patient was closely guarded, and, in three weeks from the commencement of the disease, the limb was free from sloughs and in a healthy, healing condition, the patient able to sit up most of the day, and we flattered ourselves he was fairly on the road to recovery. But, on the eve of Thursday, March 7th, the twenty-sixth day from commencement of the first attack, he was seized with violent pain in the abdomen in the region of the umbilicus. The bowels were freely moved, but the pain, despite all remedies used, persisted. Swelling and tenderness of the abdomen commenced next day, and, in just forty-eight hours from commencement of last attack, the patient died.

It should have been observed that, two nights previously to this last attack—night of March 5th, a bitter cold night—Mr. A. awoke, finding his arm cold, and a chilly sensation creeping over his back. The next day, the attack upon the bowels commenced. I doubted not but that this attack, ushered in by the previous chills, was a second seizure or development of erysipelas. No autopsy was attempted.

It is not clear that Mr. A. ever suffered, really, from erysipelas prior to this sickness, though he had been known to complain of chapping, smarting and burning of the hands at various times. Members of the family have declared to me that they have no knowledge of a case of the disease in the family prior to this, although a member of the profession avers that he treated a younger brother for the disease some years before.

Remarks.—In the recital of the above cases, I have omitted the treatment as not pertinent to the object of this paper.

From my experience with and observations upon the cases here presented, I am convinced that erysipelas was epidemic in Gloucester during the latter part of January, through February and a part of March. And, in further proof, I could introduce quite a number of cases besides those here recorded, having no sort of connection with vaccination, which occurred during that period.

I hold vaccination to be eminently an exciting cause in constitutions predisposed to erysipelas. All the cases above cited, with a single exception or two, can be directly traced to predisposition, either from previous attacks in the individual, or from the blood of relations.

In regard to the fatal cases, occurring in adults, it is worthy of remark that the subjects were both severely exposed after re-vaccination. In one case, the patient, almost immediately after the mechanical operation, was out in a severe snow-storm at work. This fact, taken in connection with his admitted predisposition, seems almost, if not quite, sufficient to account for his attack, setting aside the vaccination, as an exciting cause, altogether.

Another, contrary to express declarations made personally to him by me, at the time of re-vaccination, in regard to the dangers of exposure to cold, was at work beneath the wet bottom of a vessel, with cold caulking iron in hand, before the arm was fully well from the effects of re-vaccination. This fact, also, taken in connection with the strong presumption of predisposition, seems sufficient to explain the severity, if not the origin, of the case. I deem it *the* cause.

The selection and use of virus in these cases is a matter worthy of some consideration in this place. The virus first made use of by me, at the commencement of the smallpox excitement in Gloucester, about the last of December, 1871, and first of January, 1872, was obtained from Dr. Henry A. Martin, Boston Highlands. With this virus, I started those vaccine vesicles from which lymph was taken for further and very general use by me. I have no doubt the virus was good. In no case did I take lymph from a vesicle after the eighth day from insertion of virus (generally, the fifth or sixth day, or as early as I could get it), and in no case except from a perfectly-formed vesicle. All my vaccinations were made from fresh lymph upon the quill or ivory point. In no case did I use a scab or crust, or virus therefrom, to my knowledge. I cannot admit that the erysipelas I had to contend with in the cases cited was attributable to the virus used, for divided portions of the same lymph used in these cases were used upon hundreds of other arms with no manifestation of erysipelatous inflammation whatever. And, further, in proof of the little danger there is of introducing erysipelas into the system by vaccination with lymph taken from well-formed vesicles at a proper time, virus was secured from the arm of the child in Case I. by a friend, prior to the development of erysipelas on the child's arm, and furnished me with which to vaccinate his son. And no more healthy vaccination could be found than resulted from that virus. Case IX. also furnishes proof on this point. On the sixth day of vaccination, when the vesicle was but just forming, having previously selected the child as a fit subject, I took lymph, *i. e.* six days before erysipelas was developed, and with it vaccinated several children, and re-vaccinated a number of adults, and, though anxiously awaiting the result, after I found my mistake in the child, I was rejoiced not to find one erysipelatous arm among them.

The method of performing the operation of vaccination may be open to criticism. For the last few years, I have been in the habit of following the recommendation of Dr. H. A. Martin, Boston Highlands, that of scoring the cuticle lightly with cuts at right angles to each other and then rubbing in the virus. I do not doubt it may be more sure to take, and take *largely*, too, according to my experience; but in sensitive children, with erysipelatous tendencies, I query whether it may not be more likely to excite severe constitutional disturbance than the simple puncture and insertion of the quill point.

Gloucester, April 26, 1872.

SINGULAR CASE OF PREGNANCY.

By D. D. Gilbert, M.D., Boston.

In the month of October, 1870, I was called upon to examine an unmarried woman, about 18 years of age, who claimed that she was with child. Her story was, that she had, on the 14th of June previous, gone with a young man, from her home in a neighboring town, to attend a circus entertainment in the city; that when the entertainment was finished, it was found to be too late to obtain any conveyance home and she was obliged to pass the night at a public house with her friend; that her friend attempted to have criminal connection with her, but, encountering resistance from her, finally gave up, muttering with an oath as he did so, "I would have been all right if I had brought some chloroform."

This occurred just subsequent to the cessation of her menstrual flow. The following month her suspicions were aroused, and afterwards confirmed that she was not all right. She sought counsel of the young man, but he indignantly denied being the paternal party, and accused the girl as a strumpet. She then made her complaints to her friends, who, though having full confidence in her, hardly knew whether they should believe such a story—that she was pregnant and had never had connection with man. Legal advice, however, was called in, and I was requested to examine the case..

I found the usual external physical and general symptoms of pregnancy, three or four months advanced. Upon proceeding to a speculum examination, with a bi-valve (Storer's) speculum, I noticed some hæmorrhage, and, upon closer inspection, found that the passage and opening of the speculum had ruptured the hymen, which had apparently extended across the posterior half of the os vaginæ. I also found that the girl was afflicted with gonorrhœa, which she said she first noticed a few days after her adventures in the city, and which had been constant since.

Upon my closely questioning her, she asserted positively that the man did not, owing to her determined resistance, make any entrance; that no one else had ever attempted it; that she could not at first believe it possible for her to be in the family way, but that, if she were so, there was only one man who could possibly be the father. He as emphatically denied even having made any attempt, and positively averred that, should the law judge him guilty, he would rot in jail before he would acknowledge himself the father of the child.

The gonorrhœa soon yielded to treatment.

On the 4th of November, four and one half months from the visit to Boston, motion of the fœtus was first noticed.

On the 21st of February, 1871, thirty-six weeks from the date of conception, a natural labor set in, and a perfectly-formed and well-developed male infant, weighing eight pounds, was born without trouble.

The man continued to persist in his denial until, when brought to trial, a few weeks since, he pleaded guilty.

If he had not so pleaded, the lawyer for the prosecution, a gentleman of large experience, did not think he could have been convicted by the circumstantial evidence.

This case seems to me to present two facts worthy of record. The impregnation without rupturing the hymen, and consequently without entrance—and positively that pregnancy did not continue longer than thirty-six weeks, the shortest period given in the tables of Churchill, he recording it in only four out of five hundred cases. Nor did this case present any appearance of having been premature.

There is also presented here a coincidence, if nothing more, favoring the theory that impregnation of the ovum immediately after menstruation, or in its later stages of development, produces male offspring.

HENRY'S "VIENNA HOSPITAL TREATMENT OF VENEREAL DISEASES"

By Edward Wigglesworth, Jr., M.D., Physician to the Boston Dispensary for Skin Diseases.

If perpetual motion exists, it is in the field of scientific progress, and in that part of this field which lies nearest to us we find at last the philosopher's [and practical physician's] stone, venereally speaking.

It has been said, "publishing is the physician's grindstone," but we can only wish the best success to the grinding of all axes which are solely used to supply material for the propulsion of the wheels of progress and of the weal of humanity. If we ever envy the authority of a wide-spread reputation it is on account of its increased opportunities for the dissemination of truth. Dr. Henry, in this monogragh, has shown benevolence in motive, sound judgment in selection and a careful accuracy in execution, which merit all praise.

The saturation point of the mind of the American physician as regards a knowledge of syphilis has hardly yet been reached, nor does there seem to be much hope of this while our medical schools lack special departments of instruction upon this subject, and their students, not only hospitals, a consummation devoutly to be wished, but also even wards where they may study examples of syphilitic affections. And yet, syphilis is a disease so widely diffused, so readily communicable, so varied in its manifestations, underlying and influencing so many other pathological processes, and of such vital importance, not only to the suffering patient but also to his immediate neighborhood and to his descendants, that it claims, with more justice, perhaps than any other ill to which the human flesh is heir, a special and most thorough attention and the most extended opportunities for its study and relief.

And now, while awaiting the dawn of a

brighter day for America, to what hills shall we lift up our eyes for help? Naturally to Vienna, where nearly a dozen wards of the largest hospital in the world, as well as many wards in smaller ones, are devoted to this disease; where the best teachers in the world in this specialty are constantly experimenting, and most exact records by the acutest scientific observers are the results of and testimony to a personal supervision and a minute attention to every symptom and detail of treatment such as would seem ludicrous to one not appreciating their importance.

It is precisely this treatment employed at the Vienna school which Dr. Henry has embodied for us in his monograph. And how has he done it? Practically, concisely, and in a way adapted to meet the wants of every practitioner.

He has appreciated the fact that in dermatology and syphilology it is manner rather than means, methods rather than materials, which are of chief importance. How often, with the same medicamenta, do we not see one physician fail to relieve, nay, even aggravate symptoms of disease, and another succeed in effecting a cure simply by a more suitable method of application?

He has appreciated the fact that between the frothy bombast of one school and the sedimentary bovine-tranquillity of intellect of another there lies a third school and that, in medio, virtus, a motto as the rule, more graphic than syphilographic.

He has appreciated the fact that the majority of monographs restrict themselves to *materies non modus* and deluge us with a mass of crude materials approved of, often theoretically, merely, by the authors, instead of informing us of the exact methods of employing some of these which experience has proved to be of value. Who has not met with treatises of infinite possibilities and which though irritating from their suggestiveness were practically valueless, and felt that the author sought personal notoriety from his work far more than the welfare of humanity and the progress of his brother physicians?

The twenty pages of most valuable prescriptions with precise directions for their use will speak for themselves. Let us quote from the text of our *Henriade* on the therapeutics of venereal diseases, a few aphorisms which touch upon points too frequently neglected, bearing in mind that in venereal diseases details are the points to be especially regarded.

"The physician should in all cases insist upon the strictest cleanliness of the body in all its parts." This is an exceedingly important matter. Many of the lighter venereal manifestations will yield to simple cleanliness, some few to this alone.

"The removal of vermin demands particular attention, especially lice hid on the parts of the body covered by hair, and the itch insect." The value of this advice is readily appreciated when we say that Zeissl reports cases where syphilis has been propagated by vermin, they carrying the infecting virus.

"Tobacco smokers should, moreover, be particular to keep their mouths, throat, and also their fingers very clean for various reasons." The occurrence of opaline patches on the mucous membrane of the lips, &c., speaks for the truth of this remark.

"The customary sponge is a very doubtful, not to say really dangerous, cleansing article. Especially when diseases are of a contagious nature, the sponge should never be tolerated in a hospital." To this opinion we cordially give assent, having witnessed the grossest negligence of duty in the use of dirty sponges.

"When the vaginal mucous membrane is the seat of disease the customary hip-baths (sitz-baths) are insufficient." A self-evident observation one would say, did not experience bear direct evidence to the contrary only too frequently.

"The simplest dressing, common water, is seldom applicable to venereal wounds or ulcers. Perfectly pure water is not only difficult to obtain, but also to maintain pure." Those who have seen acute eczemas made worse and even occasioned by the use of hard water, will understand this.

"Fluid dressings are applied to wounds and ulcers by means of pencils of camel's hair, wool, cotton, charpie, &c." "The same pencil should never be used for several patients or for different dressings." Most true! Hebra, who uses large numbers of these pencils of lint, keeps the idle hands of his patients from mischief by employing them in the manufacture of such pencils.

"Ulcers and wounds should be manipulated, whenever possible, not directly with the fingers, but by means of small forceps, which should be most carefully cleansed immediately after use." The syphilidiater is of necessity exposed to so much danger that he cannot be too careful, and should make use of everything in his power which diminishes the chance of infection.

"The tampon is used with or without moistening, or smearing with various substances, and should be left in the vagina for only a short time—never more than a few hours—as it will become a new source of irritation, secretion and inflammation. Sponges are to be used as tampons only exceptionally." We have known of several cases where neglecting to remove a tampon was productive of serious trouble. In one case this seemed to be the only cause to which a coincident abortion could possibly be attributed.

"Warm fomentations are preferable to bran poultices, as moistened compresses may be covered with layers of cotton, and an impermeable covering, such as parchment, gutta-percha or India rubber. A variety of bags and apparatus are recommended, and are well adapted for the application of cold, of cold water, and of ice. Well-cleaned bladders or intestines of pigs, calves or sheep can always be procured, and will serve the purpose perfectly." Poultices are objectionable, since they may act as the bearers of contagious secretions, even when they are not eaten, as occurred in one case of which we were cognizant. The value of bladders of ice in the earlier manifestations of erysipelas is, we think, not yet thoroughly appreciated by the profession.

"Real economy, when treating persons of moderate means or hospital patients, consists not in ordering the cheapest, but the most judicious remedies." "After the patient suffering from syphilis has passed through a systematic course of treatment, a resort to the mineral springs or sea-baths will undoubtedly prove serviceable in restoring the general health. The indications for their use will of course be manifest to the physician. There is no mineral water that is really a specific for syphilis." "For patients from northern countries where the weather is cold, damp, and liable to sudden changes, a dry, moderate and equable climate should be selected, both during and after a course of treatment for syphilis." This is good advice, but no physician, if conscientious, can "as a last resource," or from self-confessed incapacity, send a patient to die from his home and friends, and no patient should, for the sake of a change in climate, place himself out of the reach of all skilled physicians.

Finally, throughout the entire book, one important and undoubted truth we read, namely, that as in all morbid states of the system so in syphilis, hygiene is what Holmes calls "the hub of the universe," and Theophile Gautier "*le pivot de la creation.*" Upon this hang all the lore and the profits! Let us see to it henceforth that the paths of the daughters of Æsculapius shall no longer be restricted to the hydro- and homœo-paths.

Reports of Medical Societies.

BOSTON SOCIETY FOR MEDICAL IMPROVEMENT.
F. B. GREENOUGH, M.D., SECRETARY.

Jan. 22d, 1872.—*Vaccination without a Scar; Scar not a Test of Thoroughness, or of Immunity.*—Dr. Cotting read a paper on the above subject (published in the Journal for April 25th). The paper was founded on some experiments performed by Dr. Cotting by subcutaneous vaccination. In one case a boy aged 12, who had never been vaccinated, had vaccine virus introduced beneath the skin by means of a hypodermic syringe. A hard, circumscribed tumor, which attained the size of a pullet's egg, followed, and after the eighth day was covered with a red areola. This was accompanied by the constitutional symptoms which usually attend successful vaccination. The tumor gradually subsided, and no scar nor trace of it was left. Forty days later, the boy was thoroughly vaccinated in the usual way, without any result beyond the usual local irritation of unsuccessful vaccination. Three weeks later, this was again done, with a similar result. From this case (where insusceptibility to secondary vaccination, and to that extent to variola, was proved to exist), no scar of the previous vaccination being present, Dr. Cotting claimed to have shown that the size or character of the scar could not have the value heretofore assigned to it in showing the degree of immunity to variolous disease.

Dr. White said he thought the question was not settled by Dr. Cotting's case, as he did not consider that he had proved that the patient really had had vaccine disease after the hypodermic vaccination.

Dr. Cotting said that he certainly had all the symptoms of it—sore arm, red areola, constitutional disturbance, and subsequently two unsuccessful vaccinations.

Dr. Hay said it must be remembered that in this case the vaccination was done in an unusual manner. If the patient had been vaccinated by the common method he undoubtedly would have had a scar.

Dr. Wellington said that it was important to know whether a very sore arm and a pustule in cases of re-vaccination show that protection has been obtained. He had never seen the vesicle in re-vaccination go through its regular stages.

Dr. Lyman said that he had obtained a perfect vesicle in a patient aged 23, whom he had re-vaccinated, and with the lymph from whose arm he had successfully vaccinated two servants. He thought that some of the doubtful results of re-vaccination might be due to the fact that adults, being obliged to use their arms, the vesicle might be broken or at least irritated.

Dr. Minot said that he got positive results in about one case in twenty or thirty of re-vaccinations. The vesicle is longer in developing than in primary vaccination, not coming to perfection before the eighth day. He had never seen a scar left by re-vaccination.

Dr. C. D. Homans said that the question of re-vaccination was an important one. At the present time all physicians are re-vaccinating many patients, and if it is injurious or even needless it ought not to be done.

Dr. Cotting said he thought that in many cases the system was already, as it were, saturated with the primary vaccination and refuses to take up the virus. Moreover, he did not believe that any amount of re-vaccination would, in every case, render it impossible for a person to have variolous disease.

Dr. White said that observations on a large scale were needed to prove the benefit or the reverse of re-vaccination. Statistics show that in those European armies where re-vaccination is practised smallpox is less prevalent than where it is not.

Dr. Wellington asked why lymph should not be taken from adults for vaccination.

Dr. H. K. Oliver said that he had, when in the Dispensary service, frequently employed the virus from vesicles of secondary vaccination in adults in the primary vaccination of children. Such inoculation was very frequently successful, even when the secondary vesicles were of quite irregular form; and, when successful, the vesicles were always well formed and their course perfectly regular.

Dr. Cheever said that thirteen years ago he had charge of the smallpox hospital. The keeper was insusceptible to variolous disease, and never had been successfully vaccinated. On the other hand, three of the fatal cases had perfect scars of vaccination.

Dr. J. Homans spoke of a case which had occurred in his father's practice. A woman, eight months pregnant, had confluent smallpox. The child was born, and was vaccinated without result. It lived to the age of 16, when it died of confluent smallpox.

Jan. 22d.—*A Case of Varioloid.* Dr. Greenough reported the case.

A child with a suspicious eruption had been sent from The Children's Hospital to the City Hospital. On the next day, it being evident that it was a case of measles, and not variola, it was sent back. It had a mild case of measles, other patients taking the disease to the number of eleven cases in all. One of these, a boy, during his convalescence (the rash having entirely disappeared) was noticed to have a vesicle on his abdomen about the size of a No. 8 shot. This was on the nineteenth day after the return of the patient from the City Hospital. At the same time he had some constitutional disturbance, vomiting, fever, &c. This vesicle increased in size for the next five days, at which time it was nearly one-third of an inch in diameter. During this time, two or three similar, though smaller, ones appeared on his breast and arms. On the fifth day after the appearance of the first vesicle, a pretty copious papular eruption came out on the face, trunk and limbs. These papules were small, all of the same size, and raised above the level of the skin, but did not communicate a "shot-like feeling" to the finger. On the next day, a new crop of papules appeared, and the constitutional symptoms were aggravated. On the day after the papules were mostly surmounted by a small vesicle, the patient was sent to the City Hospital, where he went through a mild and typical case of varioloid. No other patients in The Children's Hospital were attacked. They were all vaccinated at the time, and in three cases successfully.

Jan. 22d.—*Tumor from the Sacral and Perineal Regions of a Fœtus.* Dr. Ellis showed a tumor three or four inches in diameter, which was brought to him from Dr. Willis, of Waltham, with the following history.

The patient was 35 years of age, and nearly six months pregnant with her first child. As there was evidently some obstacle to the completion of labor, the head was perforated, but subsequent traction caused a separation of the body of the child through the lumbar region. Traction upon the remaining portion still showed some obstacle, which, being finally overcome, the body was delivered. The hand was then passed into the uterus, the placenta removed, and with it a tumor which was lying unattached in the cavity.

This was composed of a soft, brain-like material, in which were some cysts and fragments of cartilage. The soft material above mentioned was composed mainly of round granular corpuscles of about the size of white blood corpuscles.

Dr. Fitz, who also examined the growth, reported "that the mass was made up of stellate and spindle-shaped cells, with some delicate fibres and abundant transparent intercellular substance, coagulated by acetic acid. Thickly strown throughout the entire mass were innumerable round nucleated cells, of about the size of white blood corpuscles. There were also found some small nodules of bone and cartilage."

The opinion was expressed that the tumor originated in the child, not in the mother, as it resembled in some respects a specimen shown by the writer at a meeting of the Boston Society for Medical Improvement, and reported, in connection with other cases, in the Boston Medical and Surgical Journal, June, 1865.

A subsequent examination of the fœtus showed the correctness of this view. A loose portion of skin corresponding with that upon one part of the tumor extended downwards from the lumbar region of the child. The pelvis was open from below, quite widely expanded and excavated, as if previously occupied by some body. The end of the coccyx was wanting, and may have been found in the tumor as cartilage, but the original position of the growth could not be ascertained.

Selected Papers.

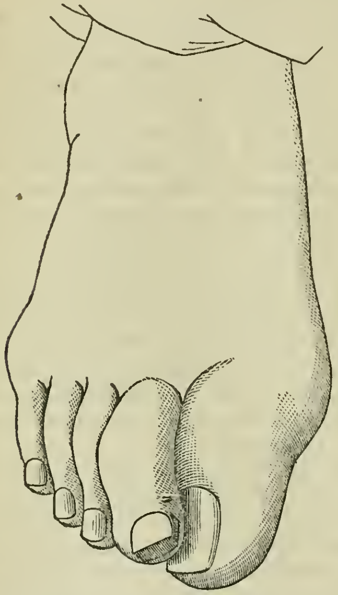
CASE OF DACTYLITIS SYPHILITICA.

By Edward Wigglesworth, Jr., M.D., Physician to the Boston Dispensary for Skin Diseases.

Shortly after having had the pleasure of reviewing Dr. Taylor's admirable paper on Dactylitis Syphilitica, published in this Journal in January, 1871, I was called in consultation to the following case:—

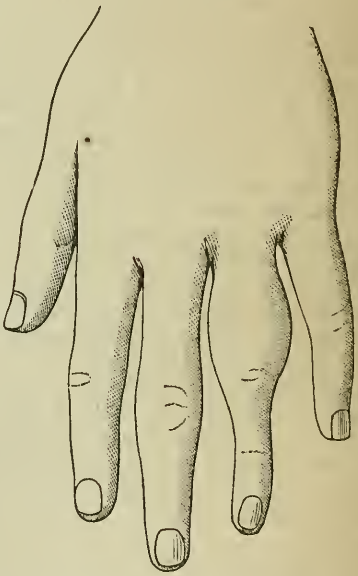
Oct. 14, 1871.—Margaret D——, Irish-American, æt. 18, house-servant. Her mother, dying of phthisis in an adjoining bed, reports her husband as having been "affected at Carrick Fair, in the old country, from a girl he met in the woods." About a year later, he seeming healthy, she married him. The first child was healthy; the second died, aged 5 years, from "scarlet fever;" the third was still-born; the fourth and fifth were healthy; this girl was the sixth child; the seventh and last is a hunchback "from a fall." The girl reports that at 12 years of age she had four sores inside her right thigh. These healed after seven months, having been treated by setons and ointments. When 13 years of age, she had scarlet fever and jaundice. Comparatively well for a year, when she had sore throat and hoarseness. The catamenia, which had twice appeared, stopped at this time for four or five months. She has since been "very irregular." She denies the existence at any time of primary lesions. Had "rheumatic fever" during the winter of 1869–70. In January, 1871, had similar pains; also a labial abscess, which yielded, on lancing, a thick, gelatinous matter. At this time there were various sores upon her skin. July 15th, '71, she entered the City Hospital. She then had a rupia horn on the upper lid of the left eye, and several sores scattered over the face. Also gummous tumors on her legs, the scars now visible, whitish and depressed. She stayed seventeen days, and took iodide of potassium. She then left, "all well except three sores on her leg, and those nearly well." Subsequently she had two swellings over the middle of the left ulna and a node on the distal extremity of the left radius, lasting for two months.

Early in September, she wounded the scalp by striking it against a nail. The spot ulcerated, and is now covered by a thick tallowy crust as large as a robin's egg. At this time the patient noticed, also, that the great and second toe of the right foot had swelled. At about the same time the first phalanx and joint of the ring-finger of the left hand swelled suddenly, reaching in a week a size half again as great as that represented in the engraving, she being at that time employed in peeling scalded tomatoes at a pickle factory. About October 1st, a node appeared on the front of the lower third of the left tibia. The patient is now, October 14th, in bed, "expecting to die before her mother, and not wishing to live." Much emaciated; very weak; no appetite; sallow and muddy complexion; headaches, especially towards morning; says previous headaches have been relieved by iodide of potassium. Pains in the tibiæ, especially on pressure upon the node of the left tibia, which is red and slightly elevated. There is a rupia crust on the middle of the right eyebrow. The left knee is swollen, and painful on pressure or standing, in and above the articulation. The articular capsule feels thickened, but there are no signs of fluctuation. She sleeps well. Has no cough or pains in her chest. Pulse 65 and weak. Bowels open daily. Amenorrhœa. Micturition normal. No signs of iritis. Reports a cold in right eye last winter, since which the eye has been weak, with some pain in the lids ; xanthelasnea of the lower lid. Slight alopecia. Volar and plantar surfaces not affected. The first phalanx and joint of the left ring finger still somewhat swollen, as represented in the engraving, but the color is normal, and voluntary movement is not lost.



In the great and second toes of the right foot there is mobility only at the metatarso-phalangeal articulation. The great toe is bluish red, swollen, especially at the second phalanx ; the integument tense. The second toe, which at present rides up over the great and third toes, is swollen from the middle of the first phalanx to the distal end of the toe, smooth, shining, violaceous in color, the furrows obliterated. No pain on pressure in any direction except slight uneasiness at the joint of the first and second phalanges. Non-elastic and resistant, but does not pit on pressure. Temperature normal. The distending deposit is entirely on the dorsal surface and sides ; the tendon can be felt underneath. No crepitation. The ligaments are slightly flaccid on traction, which produces some pain. Firm and prolonged pressure failed to disclose the condition of the joint. The length of the toe is the same as that of the opposite foot. The nails of all the toes are curved. The swelling is symmetrical, but shades off over the first phalanx. The end of the toe is larger above than below. The toe measures in circumference two and three-eighths inches, the corresponding toe of the left foot one and one-eighth inches.

The finger affected measures at present in circumference only two and a half inches, the corresponding finger of the opposite hand one and three-quarter inches. The affected finger is shortened by half an inch. The loss is wholly in the first phalanx, on the distal end of which there may be felt a bony swelling on the ulnar side.



The patient was ordered half an ounce of brandy and five grains of iodide of potassium just before each meal, half an ounce of cod-liver oil and ten drops of the syrup of iodide of iron one hour after each meal, and an ointment composed of equal parts of mercurial ointment and benzoated oxide of zinc ointment was spread on rags and applied to all the sores and nodes, to be changed daily, washing the parts clean with soap and water. The fingers and toes affected were bandaged with the same. She was sponged all over and put on a meat diet. The knee was painted with tincture of iodine.

October 16th.—Better appetite. Has taken eggs and chewed rare beefsteak. Continue treatment. Apply lard to the crusts on scalp and eyebrow.

October 19th.—Feels "much better every way." The crusts, softened by the lard, were washed off with soft soap and warm water, and the ointment applied on rags to the subjacent ulcers. Three slight swellings have appeared on the right leg: one in front, over the inner edge of the tubercle of the tibia; one behind, over the inner line of the junction of the head of the fibula with the tibia; and the third also behind, just above and to the outside of the popliteal space. Tincture of iodine was applied to these, and the ointment already mentioned.

October 23d and 30th.—Steady improvement. The brandy has been changed to comp. tinct. gentian, and she now takes seven grains of iodide of potassium thrice daily.

Nov. 7th.—Ulcers all healing. Swelling of knee and nodes disappearing. Very good appetite. Up, and about the house.

She continued improving till December 4th. The ointment was changed to pure mercurial ointment November 13th.

December 4th.—Patient went to the country for two weeks, continuing treatment. The dose of iodide of potassium had been increased at intervals until on Dec. 11th she was taking fifty-four grains daily. The toes were now smaller and their color fading. The finger also smaller.

January 15th, 1872.—The finger was nearly normal in size, so that the patient was wearing rings upon it. No pain in the toes when pulled. The swelling nearly gone. No crepitus or disorganization. Patient feels well, and "every one is passing remarks on her good looks."

January 22d.—Patient eloped from home with her lover, who, from the report of the sister of the patient, had "kept company with the patient four or five years ago, at which time he was said to be diseased."

The advantages to be derived from the local application of mercurial ointment are well shown by the rapid improvement in this case.

March 11th.—Patient came to the dispensary. Doing well generally. The second toe is completely restored to its normal condition.—*American Journal of Syphilography and Dermatology.*

Quinine an Oxytocic.—The *Kansas City Medical Journal* for April contains the reports of three cases of miscarriage which followed the administration of larges doses of sulphate of quinine for intermittent fever.

Medical and Surgical Journal.

Boston: Thursday, May 9, 1872.

THE LIBRARY OF THE SURGEON-GENERAL'S OFFICE AT WASHINGTON.

Many members of the profession are probably unaware of the fact that the Surgeon-General of the U. S. Army has authorized the collection of a medical library in connection with his office and the Army Medical Museum at Washington, and that this collection has so rapidly increased that it has already reached an aggregate of 17,000 volumes.

For this national collection of books we are indebted to the intelligent appreciation of the Surgeon-General and the medical gentlemen connected with his office; the most active agent in its increase has probably been Dr. J. S. Billings, Assist. Surgeon U.S.A., who for five years has devoted himself constantly to the library, and still remains in charge of it. The library may be said to date from the late War of the Rebellion, for, at the commencement of that struggle, it contained but 350 text books and journals. It now, nominally, forms a part of the library of Congress, but will remain under the immediate control of the Surgeon-General. Dr. Billings hopes, by means of appropriations made for the purpose and by the aid he shall receive from the profession, to make it a valuable auxiliary in medical study and research.

"The object kept in view in the formation of the library has been to obtain publications relating to—

"1. Military hygiene, medicine and surgery.

"2. Public hygiene, medical police, and State medicine, including epidemics and quarantine.

"3. Vital and medical statistics.

"4. Medical and scientific journals and periodical literature.

"5. Chemistry, meteorology and physics."

Those who are accustomed to consult medical libraries for the purpose of study are aware how lamentably deficient they are found to be, and that it is sometimes *impossible*, within the limits of a city even, to find books which are needed for the investigation of general or of special subjects; and one must often search without avail for the references to older works made in all modern books by foreign authors. Most large cities have, either in public or private libraries, a very large proportion of the books needed for medical study; and if the private as well as public libraries of a city could be catalogued at some central point, and such collections of books be made available for reference, a much needed end would be attained; but the minutiæ of such an arrangement would be too intricate for successful accomplishment. So that unless at some central point and with unlimited means and time, we cannot hope for a *perfect* medical library. A government office at Washington, however, possesses certain advantages of permanence and power not possessed by a private community, and although the national capital may be considered at some distance from us, it is not too far to allow consultation of a library in the study of an important or interesting subject. We therefore give our cordial support to a plan which has for its object a national library specially devoted to medicine. We have already received from Dr. Billings the catalogue of this library, a large folio, well and carefully arranged. It shows that the collection thus far made is an important one, and indeed justifies the custodian in asking aid from authors and medical men in all parts of the country in carrying out a plan so wisely undertaken.

A Dispensary for the Treatment of Nervous Diseases.—In the multitude of the public charities of this city, we are tempted to overlook the fact that certain real wants still remain unsupplied. Many such needs have, indeed, been furnished by members of our own profession or by the benevolent public. During the past a year a dispensary for skin diseases, a new general dispensary, and new societies for medical improvement have been established in Boston or its vicinity. We still look forward to the time when we can number a lying-in hospital, a hospital for cancer, one for the ruptured and cripples, and a sanitarium, among our charitable institutions.

To-day we gladly welcome an ambulant clinic, which has just been opened at No. 241 Harrison Avenue, for the reception of the class of disorders in which the nervous system is most prominently implicated—such as epilepsy, neuralgia, paralysis, locomotor ataxy, &c. For the present only out-patients are received. The dispensary will be open for patients with nervous disorders on Tuesday, Thursday and Saturday, between 11 and 1 o'clock. It will be under the charge of Dr. D. F. Lincoln. It will be remembered that Dr. Wigglesworth's clinic for skin diseases is held at the same place on the alternate days. Proper electrical appliances will be at hand, without which no clinic can be said to be complete.

Such an institution as this must meet the approval of medical men; the class of diseases to be treated is an important one, and requires special study. The time may come when the battery will be as familiar to us as the laryngoscope; until that time we are glad that the poorer classes in our midst will have the advantage of electrical treatment free of expense. The dispensary is in the right direction, and we wish it success.

Channing Home.—The Report of the Channing Home for the year ending April 1, shows that the institution now has fourteen inmates, which is the limit of the number that can be accommodated. During the year, fourteen have been admitted, eight have died and seven have been discharged. Since the opening of the Home in 1857, it has had 370 patients, and has thus been the means of comforting the declining years of those incurably sick, or of giving aid to those whose long convalescence from disease shuts them out from other hospitals.

Forty-sixth Annual Report of the Mass. Charitable Eye and Ear Infirmary.—The annual report of the Infirmary, published by James Campbell, by order of the Trustees, shows that, during the year ending February, 1872, there were treated as house patients 342 persons, and as out-patients 5,258, of whom 1,280 were ear-patients. An interesting series of statistical tables accompany the report, and a paper by Dr. B. Joy Jeffries on Operations for Breaking up Attachments of the Iris to the Crystalline Lens or Posterior Synechiæ.

A CASE OF SECOND SMALLPOX FROM ACCIDENTAL INOCULATION is reported in the *Brit. Med. Jour.* for April 13, by Dr. Robert Grieve, Superintendent of Hampstead (England) Hospital. A young mother, who had never been vaccinated, but who had, fourteen years previously, passed through a severe attack of variola, the scars of which still remained with unmistakable distinctness, entered the hospital with the eruption of smallpox in its pustular stage upon the face and mammæ. She had suckled her child up to the day of its death from smallpox. The child had scratched the face and breast of its mother, and the nipples were fissured and sore, and the inference was that inoculation had thus occurred. The disease in the mother was discrete and went through the regular stages, without, however, any manifestation of constitutional symptoms. The pustules, moreover, exhibited a remarkable resemblance to those of vaccinia, both in their progress and in their physical appearances.

GALVANIC TREATMENT OF BED-SORES AND INDOLENT ULCERS.—Dr. Wm. A. Hammond recommends for indolent ulcers and bed-sores, the galvanic treatment as first recommended by Crussel, of St. Petersburgh. He says:—"During the last six years I have employed it to a great extent in the treatment of bed-sores caused by diseases of the spinal cord, and with scarcely a failure; indeed, I may say without any failure, except in two cases where deep sinuses had formed, which could not be reached by the apparatus. A thin silver plate—no thicker than a sheet of paper—is cut to the exact size and shape of the bed-sore; a zinc plate of about the same size is connected with the silver plate by fine silver or copper wire six or eight inches in length. The silver wire is then placed in immediate contact with the bed-sore, and the zinc plate on some part of the skin above, a piece of chamois-skin soaked in vinegar intervening. This must be kept moist, or there is little or no action of the battery. Within a few hours the effect is perceptible, and in a day or two the cure is complete in a majority of cases. In a few instances a longer time is required. I have frequently seen bed-sores three or four inches in diameter, and half an inch deep, heal over in forty-eight hours. Mr. Spencer Wells states that he has often witnessed large ulcers covered with granulations within twenty-four hours, and completely filled up and cicatrization begun in forty-eight hours. During his recent visit to this country I informed him of my experience, and he reiterated his opinion that it was the best of all methods for treating ulcers of indolent character and bed-sores." —*Pacific Med. and Surg. Journal.*

CUNDURANGO BY ITS FRIENDS.—Through the kindness of Dr. John S. Perkins, of this city, we have been put in possession of some very interesting letters from persons whose names appear on Bliss, Keene & Co.'s certificates. The letters (five in number) do not seem to be very commendatory of the drug. Two of them from medical men deny ever giving any testimonials of its virtue whatever. Vice-President Colfax says he always declines to sign certificates of any kind, but says that a *private* letter of his once got into print and was extensively published. The remaining two from persons outside of the profession do not give evidence of any remarkable cures. In fact, both state that in the cases observed by them *no cure has been effected*, but they *think some* benefit has been derived from the use of cundurango. The proprietors of cundurango seem to have followed in the steps of all quack medicine venders, and secured certificates, no matter by what means. One of the physicians alluded to, Dr. Fitch, of Chicago, says: "I have never authorized the use of my name in the connection you speak of (cundurango), and from this fact alone I am satisfied that the whole thing is a money-making scheme and I may say a humbug."—*Buffalo Med. and Surg. Jour.*

GOUT.—This distemper is also, by some, called *Dominus morborum et morbus Dominorum*, by reason that it is one of the most tyrannical distempers, and few but gentlemen, and those of the best ranks, are troubled with it.—COLBATCH, *Treatise of the Gout*, London, 1697.

Medical Miscellany.

MASSACHUSETTS GENERAL HOSPITAL.—Dr. Shaw has resigned his position as Resident Physican, and Dr. Norton Folsom has been appointed by the Trustees of the Institution in his place. Dr. Shaw will remain at the hospital until the autumn, when he will resume private practice. Dr. J. Collins Warren has been chosen one of the surgeons to out-patients, and Dr. Edward N. Whittier one of the physicians to out-patients.

BOSTON MEDICAL ASSOCIATION.—At a meeting of the Association held on Monday, the following officers were elected for the ensuing year: For *Secretary*, Dr. J. Collins Warren; *Standing Committee*, Drs. N. B. Shurtleff, George Hayward, Francis Minot, C. D. Homans and Buckminster Brown.

AT the annual meeting of the Essex North District Medical Society the following resolutions were passed:—

Whereas, Some expression is due from this Society to one of its members for the honor he has conferred upon it by his recent researches and for the many valuable matters which he has brought before it from time to time—

Resolved, That the members of the Essex North District Medical Society, appreciating the scientific and self-imposed labors of Dr. H. C. Perkins, of Newburyport, for the good of our profession, not only congratulate him on the high position he has attained as a Scientist, but extend to him our warmest thanks for the very able paper on Vegetable Organisms, read before this Society, and which has been published in the doings of the Massachusetts Medical Society for the year 1871.

Resolved, That the above be entered upon the records of this Society, and be sent to the Boston Medical and Surgical Journal for publication.

MARTIN ROOT, *Secretary*.

Dr. SAMUEL JACKSON, Emeritus Professor of the Institutes of Medicine in the University of Pennsylvania, died at his residence on the 6th ult.

Dr. ZINA PITCHER, of Detroit, Michigan, Emeritus Professor in the Michigan University, and, at one time, President of the American Medical Association, died April 5th, at the age of 75.

THE EPIDEMIC OF CEREBRO-SPINAL MENINGITIS continues to prevail in Buffalo; the health officer's report for March shows thirty-two deaths from this disease alone. Dr. Davis, of the *Chicago Examiner*, also reports an unusual prevalence of the disease in that city during February, March and April. He had used the calabar bean and ergot with excellent effect in the treatment of the disease.

TO CORRESPONDENTS.—Communications accepted:—Case of Occlusion of the Arteries arising from the Arch of the Aorta, with Aortic Degeneration and Aneurisms.—Athetosis.

BOOKS RECEIVED.—History of Medicine from the earliest Ages to the commencement of the Nineteenth Century. By Robley Dunglison, M.D., LL.D. Arranged and edited by R. J. Dunglison, M.D. Philadelphia: Lindsay & Blakiston. 1872. Pp. 287. (From A. Williams & Co.)—Memoranda on Poisons. By the late Thomas Hawkes Tanner, M.D., F.L.S. Third Edition. Philadelphia: Lindsay & Blakiston. 1872. Pp. 155. (From A. Williams & Co.)

PAMPHLETS RECEIVED.—An Inquiry into the Nature of the Uterine Supports and of the Causes of Displacements. By Samuel C. Busey, M.D., Washington, D. C. Pp. 39.—Eighteenth Report upon the Registration of Births, Marriages and Deaths in the State of Rhode Island for the year ending Dec. 31, 1870. By Edward T. Haswell, M.D. Pp. 96.—On the Curability of Cancer and its Medical Treatment without Surgical Operation. With Notes upon a new mode of Treatment of Caries of the Bones. By Dr. G. von Schmitt. Translated from the French. London. Pp. 52.—Irrigations of Ice Water as a means of arresting Hæmorrhage in Cases of Placenta Prævia. By W. O. Baldwin, M.D., Montgomery, Ala. Pp. 13.—The Ethics of the Medical Profession. Read before the Sacramento Society for Medical Improvement. By Joseph F. Montgomery, M.D. Pp. 14.—Forty-sixth Annual Report of the Surgeons of the Massachusetts Charitable Eye and Ear Infirmary. February, 1872. Pp. 28.—The Divine Law concerning Marriage: A Discourse by Rev. Wm. A. McCorkle, D.D., Pastor of the Third Presbyterian Church, Boston. Pp. 49.—An Investigation concerning the Mechanism of the Ossicles of Hearing, and the Membrane of the Round Window. By Charles H. Burnett, M.D., Philadelphia. Pp. 13.

DIED,—In Milan, Italy, 11th ult., Wm. H. Hodges, M.D., a recent graduate of Harvard Medical School, aged 25 years.

Deaths in sixteen Cities and Towns of Massachusetts, for the week ending May 4, 1872.

Cities and Towns.	*No. of Deaths.*
Boston	129
Charlestown	11
Worcester	29
Lowell	18
Milford	5
Salem	6
Lawrence	5
Lynn	21
Gloucester	9
Fitchburg	4
Taunton	7
Newburyport	7
Somerville	6
Fall River	15
Haverhill	2
Holyoke	5
	279

Prevalent Diseases.	
Consumption	55
Pneumonia	33
Scarlet fever	20
Measles	9
Smallpox	8
Erysipelas	7

The deaths from smallpox were as follows:—Seven in Boston and one in Holyoke. Of the deaths from measles, seven were in Worcester.

GEORGE DERBY, M.D.,
Secretary of State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, May 4th, 129. Males, 63; females, 66. Accident, 3—apoplexy, 1—asthma, 1—atelectasis, 1—anæmia, 1—bronchitis, 5—inflammation of the brain, 2—congestion of the brain, 2—disease of the brain, 7—inflammation of the bowels, 2—burned, 2—cancer, 2—consumption, 19—convulsions, 3—debility, 4—diarrhœa, 1—dropsy, 1—dropsy of brain, 4—diabetes, 4—erysipelas, 5—scarlet fever, 8—typhoid fever, 2—gastritis, 1—disease of the heart, 2—insanity, 1—intemperance, 1—disease of the kidneys, 4—disease of the liver, 1—congestion of the lungs, 1—inflammation of the lungs, 10—marasmus, 2—measles, 2—necrosis, 1—old age, 1—paralysis, 4—premature birth, 1—puerperal disease, 5—smallpox, 7—disease of the spine, 2—unknown, 3.

Under 5 years of age, 46—between 5 and 20 years, 8—between 20 and 40 years, 31—between 40 and 60 years, 23—above 60 years, 21. Born in the United States, 87—Ireland, 29—other places, 13.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

NEW SERIES.] THURSDAY, MAY 16, 1872. [VOL. IX.—NO. 20.

Original Communications.

OBSTETRICS IN VIENNA.

By PATRICK A. O'CONNELL, M.D., Boston.

DEEP down among my recollections of the embryonic period of my professional life—so deep, indeed, that the shadowy, ill-defined memories blend themselves with the mythological reminiscences of college studies, and borrow from them a hue of mixed fable and fact, which renders their testimony to some extent unreliable, perhaps, I find traces of a record of medical experience, which is not wholly without interest, even now.

It was narrated to me by an early and intimate friend (a member of the medical profession), as having occurred in a hospital in a certain city north of *Mason and Dixon's* line, in which he discharged the functions of one of the Internes, while prosecuting his medical and surgical studies. I know it to be a truthful record of medical experience, and I write it, as nearly as I can now remember, in the words of the narrator, being in a measure pertinent, and *ad rem* to the subject of this communication.

"A young lady, of very fine development, of modest deportment and prepossessing manners, had occasion to apply for medical assistance and treatment at the hospital, on account of an acute tumor in the abdomen, which had made its appearance suddenly, had grown rapidly, and for the occurrence of which she could assign no cause, &c. &c. Her address, and the peculiarity of her case, as she represented it, secured for her admission to the hospital at once.

"She became, immediately, an object of great interest and solicitude to the philanthropic and gentlemanly physician under whose care she was placed. Examinations were made, and consultations were held over the case; theories were suggested, and all possible kinds of tumors were discussed, but no conclusion could be reached as to the nature of the disease. The worthy physician in attendance, with a consideration that certainly spoke well for his goodness of heart, being unwilling to make, or cause to be made, a vaginal examination, because he did not wish to do the lady the injury of rupturing the hymen, and thus destroying the evidences of virginity, if a satisfactory conclusion could be reached without doing so. The case continued in this unsettled state of diagnosis for a period measurable by weeks rather than days (if my memory serves me correctly). The lady occupied her place in the ward with patience and resignation, although the tumor seemed to become more alarming rather than to give hope of improvement, until, one day, '*Nature*' came to the assistance of the puzzled professor, and forced the patient herself to solve the problem and remove all doubts as to the character of her ailment, by safely giving birth to a vigorous child.

"It is scarcely necessary to say that the students did not see her smiling countenance at her usual place in the ward during her convalescence; and it may not be presumptuous, perhaps, for us to conjecture that the good-hearted professor became convinced by this event that even *he* was not beyond the possibility of deriving benefit from a practical lesson."

My reason for making use of such an old and perhaps unwelcome memory at this time is that it comes in, in very good stead, as an introduction to a few remarks I send in reference to the way in which some things are managed in Vienna; and, also, because I have wondered whether such an unfortunate occurrence could have happened to a physician here, where the obstetricians are supposed to be able to diagnosticate not only the existence of pregnancy, but also the position of the child in the uterus, the presentation and the probable time of delivery, *from external manipulation alone*, although, usually, they confirm their diagnoses, and determine whether the patient is a primipara or a multipara, by vaginal examinations, too.

It has been stated in this JOURNAL, already, when speaking of the obstetric department of the Hospital in Vienna, that, annually, more than 8000 pregnant women are received and delivered of their children in this institution. With such numbers to care for—numbers which very rapidly multiply small items of habitual waste into enormous unnecessary expenses—it becomes imperative, of course, that a constant and careful supervision should be exercised. Every day that a patient remains in the hospital she adds somewhat to the bill of expenses. Every day that she remains a *patient* when her condition does not require it, she increases the amount of waste, and thus, both *before* and *after* delivery, the humanity and judgment of the physician are put to the test, and he must constantly determine to what extent kindness may be exercised towards the patient or applicant, without doing injustice to the hospital. The regulations limit the period of a patient's stay in the hospital, including the time of labor, and convalescence therefrom, to (67) sixty-seven days, *i. e.* unless some complication occurs after delivery to render prolonged treatment necessary; and in consequence of this, before a pregnant woman applying for admission can be accepted, it becomes the duty of the physician to determine whether she is in fact pregnant, and about what time in the natural course of events she will be confined, so that, allowing a proper time for her to stay in the hospital after delivery, her whole sojourn may not exceed the limited period.

The diagnosis and prognosis, in these cases, must, of course, be made independently of any statements made by the women themselves, because many of the poor creatures are so anxious to find a place of refuge that they would readily misstate facts to their own advantage, if their testimony were called for (*i. e.* presupposing that they know enough to state anything with intelligence), and as a matter of fact no questions are asked the women—the diagnoses are made without their assistance.

The regulations, in reference to the period at which a woman may be admitted to the hospital, are not so rigid as to prevent exceptions in cases of special interest, when the professor deems proper. And in *malformations*, or cases outside of the usual course of nature, the utmost freedom of admission is exercised. Not so much for the benefit of the patient, however, as for that of the student.

As the reception of patients advanced in pregnancy becomes a part of the regular business of the hospital, of course regular hours have been established when they may present themselves to have their cases passed upon; and the examination of women applying for admission takes place, regularly, every afternoon at 5 o'clock.

The term "Aufnahme" is the technical name by which these receptions are known. They apply, of course, only to such women as are not in actual labor, as these latter are admitted without ceremony at any time; and it is the more than common occurrence to have poor women brought into the hospital in the different stages of parturition; many of them, perhaps, after having been laboring in vain under the superintendence of midwives outside, and of private practitioners, who had been called to their assistance.

The receptions are divided between the two divisions of the obstetric department, superintended respectively by Professors Spaeth and Braun. On *Tuesdays, Fridays* and *Sundays*, Prof. Spaeth has the Aufnahme or Reception, on the other four days of the week the applicants for admission being committed to the tender mercies of Prof. Braun. And, so far as the patients are concerned, there is certainly a choice between the two, for the patients of the former are not exposed to the manipulations of the students, because he lectures only to the young women who are being educated as midwives, and on this account is not interested in converting his wards into a general educational establishment. But the receptions in Prof. Braun's wards, on the contrary, are always well attended, because *here* the students are granted an unrestricted license to go through with the processes of examination upon all those applicants who, upon examination by the physician on duty, have been found to come within the proper period for admission, and who have, in consequence, been accepted. The applicants who, upon examination by the physician, have been found to be, as yet, insufficiently advanced in pregnancy to justify their admission in accordance with the regulations, are allowed to arise, dress themselves and go their way unmolested, to present themselves, if they wish to, again, at a later period.

With such arrangements for the admission of patients, and with the amount of practice, in this kind of work, that the ordinary business of the hospital throws upon the attending physicians, it is natural that they should acquire a special aptitude for making diagnoses in these cases. Very little time is consumed in examining the patients who present themselves. They are received or dismissed, without any questions or any hesitation, upon the testimony of the objective signs alone, and blunders do not occur to taunt the admitting physician with his mistake, during an unnecessarily long sojourn of the patient.

Are all your readers familiar with the manner in which these examinations are made; with the theories which lead to the methods of diagnosis? If not, perhaps it will not be received unkindly if I attempt to give a cursory outline of them.

The points to be determined when applicants present themselves for admission to the obstetric department of the hospital, are:—

1st. The age of the pregnancy, which involves, of course, the question of the actual existence of pregnancy.

2d. The position of the child in the uterus; and

3d. Whether the woman is a primipara or a multipara.

First. In relation to the age of pregnancy. The whole term of gestation is divided into ten periods, commonly called months here, under the impression that they constitute lunar months; and without stopping to question the correctness of the astronomy, as any name that is understood will answer the purposes of explanation sufficiently well now, we will use the term as synonymous with "period," which expresses the theory just as well, and is perhaps more correct in point of fact. Dividing, then, the whole term of gestation into ten periods, the *pubes*, the *umbilicus* and the *ensiform cartilage* become the fixed points which enter into the making of the diagnosis. When pregnancy is three months advanced the uterus is increased in size, has reached as high as the upper strait of the pelvis and may be felt at the pubes. At six months, or at the sixth period, it is as high as the umbilicus, and the ninth period has been fully accomplished when the ensiform cartilage has been reached; the intervening periods being determined by subdividing, evenly, these primary divisions.

While the uterus has thus been increasing gradually in size, however, up to the end of the ninth period, the presenting part of the child has been movable; it has not as yet become engaged in the pelvis and is not fixed. This condition continues until the completion of the ninth month, but at the beginning of the *tenth* month, or period, a new order of things sets in. The presenting part gradually settles itself into the cavity of the pelvis and becomes to an extent immovable; and as "it progresses in its descent and becomes more and more fixed in the pelvis," the uterus also subsides from the height it had attained at the completion of the ninth period. A settling occurs with it, too, and some of the altitudes which it traversed, in growing up to the ensiform cartilage, become of necessity retraversed, as it settles down again, until, at the end of the tenth period, it has descended to the level it occupied at the end of the eighth period.

This latter circumstance, of course, renders the mere height of the uterus alone, after the end of the eighth period, an uncertain sign upon which to base a diagnosis, as a pregnancy of eight and a half periods would show a tumor of the same elevation as one of nine and a half periods; in this latter case the uterus having already reached the ensiform cartilage at the completion of the ninth month, and having subsided, on account of the sinking of the presenting part into the pelvis, so as to pass through positions occupied before. In estimating the meaning of the height of the uterus, therefore, as a sign of the age of pregnancy after the end of the eighth period, it becomes necessary to recognize the cause of the complication, viz., the settling of the presenting part into the pelvis, and thus secure a means of removing doubt. At any time *before* the completion of the ninth period, the presenting part of the child is not engaged in the pelvis. If the head presents, it is what is designated a "high head," and is easily movable—it is free; while *after* the completion of the ninth period the part becomes gradually more and more fixed as it descends, its movement becomes restricted, and as it is easy to feel the presenting part through the walls of the abdomen, the mobility or immobility enables the physician to give the proper meaning to the height of the uterus. If the uterus is below the ensiform cartilage, and the presenting part of the child is fixed, the ninth period has been passed. If the uterus is below the ensiform cartilage and the presenting part is still movable, the ninth month, or rather the ninth period, has not been completed; and the distance of the fundus of the womb from the fixed point mentioned already, enables one to determine the actual age of the pregnancy.

Another point that has some meaning when considering the age of the pregnancy, although I have not noticed that it is dwelt upon much, is that after the completion of the ninth period, the uterus is thrown forward more than was the case previously; the direction of its axis becomes changed, and this fact may enter into consideration as an assistance towards making the diagnosis.

Second. The position of the child in the uterus.

In addition to the ability acquired by constant practice of feeling, through the walls of the abdomen, the position of the child in the womb, the sounds of the fœtal heart are made use of, also, for the purpose of making this diagnosis. In the first place, all possible positions that a child may assume in the different presentations (head, breech or cross) are simplified in their division into two, viz., a first and a second. The term *first position*, applying to all those in which the occiput or posterior aspect of the presenting part is to the left side of the patient; the term *second position*, applying to such as have the posterior aspect of the child to the right; and in cross "*lagers*," as they are termed here, wherein there is as yet really no presenting part, the location of the back of the child determining the name to be applied to it. In cross "lagers," or cross situations, the "lager," or "*lay*" *of the child* is designated the first or second lager, according to the location of the head; if this is on the left side of the woman, the "lager" is the first; if on the right side, it is the second. In addition to this, however, a distinction is made, also, in reference to *position*—a distinction based upon the location of the child's back. If the back is towards the patient's abdomen, *i. e.* in front, the position being the first; if towards the woman's spine, the second: and thus, for the purpose of illustration, in a cross "lager," with the child's head on the left side of the abdomen, and the back in front, the designation would be first lager, second position. The diagnosis of these points is considered of value in these presentations, because the method of turning and the position of the patient during the operation are dependent upon the position of the child.

Having thus divided the *positions*, the sounds of the fœtal heart, when audible, indicate where the back of the child is situated, and, having learned the *presentation* already, these sounds become, of course, an index to the manner in which the child is lying. Palpation of the abdomen readily indicates the spot where the fœtal heart-sounds must be sought for; if they exist on the left side of the umbilicus, the presenting part is in the first position; and if on the right side, the position is the second.

In cross "lagers," the sound of the fœtal heart is not an infallible index of the position of the back of the child, as this sound is heard sometimes when the back is towards the spine. In these cases, as well as in those in which the fœtal heart cannot be heard at all, the diagnosis must be made by manipulation.

Third. In concluding the ordeal through which the applicant is obliged to pass, a vaginal examination is made, finally. By means of this examination, the evidence obtained by feeling through the walls of the abdomen, in reference to the mobility or the immobility of the presenting part, obtains corroboration, or, perhaps, sometimes, correction; and the value of this point, in enabling the physician properly to interpret the meaning of the height of the uterus, after the completion of the eighth period, has been referred to already. Besides this, the roughness or smoothness of the mouth of the womb, its consistence, and the extent to which it is open, indicate to the practised touch, immediately, whether the patient has borne children before or not.

In writing this communication, I have done so simply for the purpose of giving a general idea of how these examinations are conducted, and with the intention of indicating in a broad manner, only, upon what grounds the diagnoses in these cases are arrived at. It will be understood, of course, that, besides the gross indications which I have endeavored to make clear, there are other points, of varying importance, which, also, must be taken into consideration in different patients. In some women, the quantity of fluid in the uterus is unusually great, while in others it may be unusually small, and that these conditions should have an influence upon the height of the uterus will not appear strange. The size of the fœtus, itself, sometimes becomes deserving of notice, and these facts must be taken into consideration when determining the age of the pregnancy.

Again, I have met with multiparæ in whom, after a rest of more than three years, the uterus had become so fully rejuvenated, and the marks usually found about the vaginal portion of the uterus of women who had borne, had become so fully obliterated, that it could scarcely be distinguished from that of a primipara, by the most practised touch; and other points of like importance exist, which it would prolong this letter too much to attempt to dilate upon now.

Vienna, Austria, March 12, 1872.

TWO CASES OF COMPOUND FRACTURE OF THE LEG.

By G. B. Stevens, M.D., Gloucester.

M. O'C., a stout, healthy fisherman, æt. 19, while at work on the deck of a vessel, stepped upon, or rather into, a coil of rope, which was paying out rapidly, as the vessel dropped astern of another to which one end of the line was fast. The rope caught him about the left ankle, threw him, and then slipped off.

When seen, one hour afterwards, the venous hæmorrhage had been very considerable, and blood was constantly dropping into a pool which had formed on the floor. Examination showed a compound fracture of the left leg, at the junction of the upper and middle thirds, the upper fragment of the tibia, with its periosteum peeled up, protruding for about an inch, and pinning the soft parts firmly beneath it. The fracture was as smooth and as nearly at right angles with the shaft of the bone, as if it had been made with a saw. The fibula was unbroken. Over the external malleolus was a large flesh wound, produced by the scraping of the rope.

Reduction was accomplished by forced extension, and the use of the director to elevate the protruding fragment and thus liberate the soft parts beneath. The wound was dressed with carbolic acid and olive oil, one part to eight, and the leg laid loosely in a fracture-box, extemporized from a wood-box.

When seen two hours afterwards, the venous oozing was so considerable that the dressing had to be removed, and liquor ferri perchloridi freely applied. On the fourth day, suppuration was established, after smart irritative fever; the former was at no time great, no collection of matter forming, while the latter very soon lessened and then ceased altogether.

The subsequent treatment consisted in the use of the flexible Crimean splints laterally, and also of the fracture-box, with a weak solution of chlorinated soda for a local application. There was no necrosis, and at the end of five weeks the union was tolerably firm. The large ulcer which followed the ragged wound over the outer ankle was slow to close. It had healed at the end of seven weeks; the union was firm, with a very slight curve on the inner side of the site of fracture, but without shortening, and the ulcer in the latter situation was trifling. A starch bandage was now applied, and in a couple of days the patient was moving about nimbly with crutches.

E. D., a delicate boy, æt. 10, while sliding in a field, ran into a rock. The force of the shock received on the sole of the right foot caused a fracture of the leg, as a fall on the shoulder produces fracture of the clavicle. There was found a compound fracture of both tibia and fibula, three inches from the ankle, with protrusion of the upper fragment of the tibia to the extent of half an inch. From the appearance of the sock, the patient might have lost an ounce of blood.

The fracture was readily reduced, cotton wool soaked in the blood laid over the wound and confined with a few turns of bandage, and lateral splints applied. On the fourth day, the splints were removed, and the limb placed in a fracture-box made to measure.

The case progressed precisely like a simple fracture, there being no suppuration or irritative fever whatever, and so little swelling that the bandage about the wound, which had been applied snugly, had not to be loosened at all. It was not disturbed till the end of four weeks, when union of the fracture being firm (and without any shortening or deformity whatsoever), and the flesh wound quite healed, a starch bandage was applied, and the patient allowed to get up. While in the recumbent posture, he suffered more from intense itching of the leg, produced probably by the contact of the cotton wool used in the packing of the fracture box, than from actual pain. This was relieved in a great measure by the use of powdered starch dusted between the limb and the cotton wool.

Reports of Medical Societies.

BOSTON SOCIETY OF MEDICAL SCIENCES.

EDWARD WIGGLESWORTH, JR., M.D., SECRETARY.

Jan. 30th, 1872. The Society met at the house of Dr. John Homans, Dr. Green in the chair.

Microscopical Pathology of Apoplexy.—Dr. Webber showed two or three specimens, under the microscope, illustrating the pathology of apoplexy. He said Charcot, with Bouchard, first called attention to the fact that disease of the arteries, affecting the external coats, gives rise to dilatations of the smaller arteries and the formation thereby of miliary aneurisms, the rupture of which causes the apoplectic effusion. It is not disease of the inner coats or atheroma, of which he speaks, but of the external coats, or periarteritis. The disease affects primarily the perivascular sheath and results in a multiplication of nuclei. Charcot states that he has seen the nuclei constricted in the centre, like a dumb bell, and evidently in process of division. This proliferation of nuclei may go so far as to obscure the artery and its coats. The adventitia is next affected, its nuclei being increased in number, or it may become thickened and cause the arteriole to resemble a fibrous cord. The muscular coat is affected with atrophy of the smooth muscular fibres, without fatty degeneration. As the arterioles derive their chief strength from the muscular layer, when its elements are atrophied the walls are weakened, and by a slight additional pressure they dilate and a minute aneurism forms, limited by the perivascular sheath. The rupture of the sheath allows the effusion of blood into the cerebral substance.

These aneurisms were noticed before Charcot explained their significance, but no one gave a similar explanation of their consequences. Charcot states that these aneurisms are found in the grey substance, and by preference in the optic thalamus and corpus striatum. They are also found not infrequently in the convolutions.

It is said that the vessels of the meninges may undergo a similar change; this I have not found yet. The rupture of a miliary aneurism in a convolution near the surface may give rise to hæmorrhage external to the cerebral substance, and may simulate meningeal apoplexy, but would not be properly such.

In some five or six autopsies of apoplexy, I have seen these aneurisms in all except one, and perhaps closer examination would have shown it in that.

One of Dr. Webber's specimens showed the disease of the perivascular sheath, and the proliferation of nuclei to such an extent as to hide the remaining structures. The artery had a slightly fusiform dilatation.

The other slides showed sections through a vessel at its aneurismal dilatation, the sections being fortunately made at just the point where the vessel dilated or ruptured so as to form the aneurism. A hand glass showed the structure better.

Absorption of Opium per Rectum.—Dr. Amory spoke of the rapidity of absorption by the rectum of the deodorized tincture of opium, which he considered about equal to that of morphine. He injected slowly twenty-six drops of the tincture in a half pint of warm water into the rectum for gastric pains from catarrh. In three minutes the pains had ceased, in five minutes the patient was dozing, and in seven minutes was asleep and slept profoundly the whole night.

Dr. Amory then mentioned that during the recent cold weather one hundred and twenty frogs had been left in his unwarmed laboratory. After sixteen hours, about three quarters of the number were found frozen, more than a dozen being imbedded in solid ice. By gradually thawing them out, beginning with ice-water and very slowly raising its temperature, all but one were restored to life within an hour and a half. He regretted not having studied the condition of the circulation while they were frozen.

Selected Papers.

RETINAL ARTERIAL PULSE IN INSUFFICIENCY OF THE AORTA.

Translated for the Journal, by B. Joy Jeffries, M.D.

Dr. H. Quincke, in the *Berl. Klin. Wochensch.*, 1868, No. 34, and 1870, No. 21, calls attention to the occurrence of a spontaneous arterial pulse in the retina in cases of aortic insufficiency. More recently, Prof. Becker and Dr. Sichting have studied up the subject, and will make an extended report in the *Archives of Ophthalmology*. They have found that in *all* cases of aortic insufficiency, *unaccompanied* with valvular trouble, there is retinal arterial pulsation, the more marked the greater the hypertrophy of the left ventricle. It only failed to be found when there was great anæmia or fatty heart. The arterial pulse is not only seen on the optic-nerve disk, but as far on the periphery as the ophthalmoscope allows us to see.

As is known, we may have a venous pulse in the retina as a normal or physiological condition. An arterial pulse, however, means something abnormal. It is one of the signs of glaucoma; here, however, it is an intermittent pulsation of blood into the retina, whilst with aortic insufficiency all the qualities may be perceived, just as we distinguish them by our finger on the radial artery. We may count the frequency of the heart's contraction, the dilatation and elongation of the arterial tube (large and small pulse), the length of time of dilatation and contraction, and the intervening pause of each pulse wave (*pulsus celer et tardus*). In fact, the ophthalmoscope shows us directly the pulse curve. The dilatation of the arterial tube is best seen at a point of division, the elongation where there is an S-shaped curve. This curve becomes increased during the arterial diastole and quickly resumes its shape during the systole. Sometimes the whole retina thus looks sort of alive, or in motion. In some vascular arrangements on the papilla, the whole arterial twig rises with the heart's contraction, so that here also we have a peculiar rhythmic movement of the artery.

The most interesting point these observers have noticed was in a case of aneurism of the arch of the aorta. Here the artery pulsated strongly in the retina of the left eye, whilst hardly a trace of rhythmic action could be detected in the right eye. Seemingly this must be connected with the peculiar situation of the aneurism. Supposing this implicated the origin of the arteria subclava sinistra and the carotis sinistra, whilst the anonyma was not affected, and the action of the aneurism more especially on the left eye is explainable. It is possible we may thus have an additional means of diagnosticating the existence and localization of aortic aneurisms.

These observations and deductions of Quincke, Becker, and Sichting give us further testimony to the value of the ophthalmoscope in general medicine, as Mr. Allbutt has recently shown in his work on the "Ophthalmoscope in Diseases of the Brain and Nervous System."*

ON THE TREATMENT OF HÆMORRHOIDS IN PREGNANT AND PUERPERAL WOMEN.

By Fordyce Barker, M.D., New York.

During gestation we have as a predisposing cause, the pressure of the gravid uterus upon the rectum, which retards or prevents the return of the blood from the hæmorrhoidal plexus of veins to the inferior mesenteric veins. But this exists as a cause in every pregnant woman, and therefore some other element seems to be necessary for the development of the disorder, and this may be either constipation or diarrhœa. In constipation there is probably the same atony of the coats of the hæmorrhoidal veins as exists in the muscular coats of the rectum, and the pressure of accumulated fæcal matter contributes to make these veins varicose, and, if long continued, to develop the hemorrhoidal tumors. The effect of a purgative is to stimulate an abnormal peristaltic action in directly an opposite direction to the returning blood of the hæmorrhoidal veins. Some who are subject to piles are never constipated, but have habitually a loose, relaxed condition of the bowels, the same atony of the venous coats resulting from the irritation and exhaustion of diarrhœa as exists in constipation. So, therefore, either constipation or diarrhœa may develop the hæmorrhoids. If the hæmorrhoidal veins have become varicose during the later periods of gestation, the tumors may be developed by the long pressure of the fœtal head on the rectum during labor. The hæmorrhoidal veins sometimes swell enormously at this period, as they are probably weakened by the distention they have suffered during the progress of the labor, and they regain the power of contracting at this time with great difficulty. In many patients the hæmorrhoids are first developed by the action of the purgative given two or three days after confinement.

I will now describe the treatment which I have found the most successful in each of the above conditions, and which I have substantially taught in my lectures to students for more than twenty years past.

When hæmorrhoids are developed during the later periods of pregnancy, the indications are obviously to counteract the constipation or the diarrhœa, and to stimulate and to restore the tonicity of the hæmorrhoidal veins. The inquiry will then naturally suggest itself, have we any agent or combination of agents in the materia medica capable of effecting these results? I know of no article which so clearly and positively produces these two results as aloes, and on this I have mainly relied. I am well aware that the general voice of the profession is against the use of aloes where there is any tendency to hæmorrhoids. That "aloes is contraïndicated by hæmorrhoids" is not only the doctrine of the "Dispensatory of the United States" (Wood and Bache), but it is also the opinion of most writers on materia medica from ancient times down to the present day. "Fuchsius was of opinion that of one hundred persons who should take aloes frequently as a laxative ninety would be attacked with the piles. Murray blames physicians who are induced by the gentle and certain action of this medicine to expose their patients to so serious a consequence. It was to this purgative that Fonescha attributed the prevalence of piles among the inhabitants of Padua, and Stahl makes a similar statement in regard to the people of Hamburg. Calvin is cited as a prominent example of this mischief produced by aloes; for this celebrated reformer is said to have died ultimately from the effects of the piles which it gave rise to; but as he was of a frail constitution, subject to quartan ague, gout and gravel, the part which aloes bore in his demise may reasonably be judged to have been small." But these opinions have not been accepted by all; for Cullen, Sir Benjamin Brodie, Trousseau and Pidoux, and others have doubted whether aloes is productive of piles, but attribute this infirmity not to the medicine, but to the constipation which aloes is used to remove. I will, however, parenthetically say here, from my own observation, I am convinced that aloes will, under certain conditions of the system, and in certain doses, develop piles. The special property of aloes is "to exert the muscular contractility of the colon and rectum," and "to stimulate the venous system of the abdomen, and especially of the pelvis." That these are the effects of this agent I have not only the authority of special writers on therapeutics, as Pereria, Wood and Bache, and others, but I believe the general experience of the profession also will confirm the assertion. It would seem, therefore, that the use of aloes for the cure of hæmorrhoids in pregnant women would have suggested itself *a priori* reasoning; but I am not aware from anything that I have read that it ever has. I suppose that the general impression that aloes is contraïndicated where there is any tendency to hæmorrhoids, and that it possesses emmenagogue properties, has had great influence in preventing this. In my own case, the use of this article for this purpose was the result of gradually accumulating observation rather than from any reasoning on the subject.

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* We copy, on a subsequent page, from the *British Medical Journal* of Dec. 23, 1871, a case of pulsation seen in the arteria centralis retinæ, which is interesting in connection with the translation of Dr. Jeffries.—Eds.

In the early days of my professional life, I was engaged to attend a woman in her confinement who suffered from obstinate constipation. I prescribed for her Dewees's pills. At the time of her confinement, she mentioned that in her former pregnancies she had suffered very much from piles, but that my pills had cured them. If I had known of her hæmorrhoidal tendency I should not have given these pills, and I was therefore quite surprised by her statement, as the result seemed so contrary to all that I had been taught. From this time I began to experiment as to the effect of aloes in the treatment of hæmorrhoids, associated with constipation, in the pregnant; and for many years past I have constantly made use of aloes for their cure, whether the hæmorrhoids were the result of constipation or diarrhœa. I give it, combined with other agents, according to the special indications of each case, and in such doses as I learn by experience of the peculiar idiosyncrasy of the individual is necessary to secure one easy, free, daily evacuation of the rectum. Some require a grain morning and evening, while in others a half grain is sufficient. In anæmic patients I combine the aloes with the sulphate of iron. In the last two weeks of gestation I always combine it with the extract of belladonna. The following is a frequent prescription with me:—

℞. Pulv. aloes soc.,
Sapo. Cast., } āā ℈j.;
Ext. hyoscyami, ʒss;
Pulv. ipecachuan,. gr. v.

M. Ft. pil. (argent.) No. 20. S. One morning and evening.

When the patient is anæmic, I add to the above one scruple ferri sulphat. Some ten days or two weeks before the supposed time of labor, I substitute the extract of belladonna, ten grains to one scruple, for the extract of hyoscyamus. When the hæmorrhoids are associated with an irritable rectum, and frequent, small, teasing, thin evacuations, I substitute for the hyoscyamus a small quantity of opium, giving a smaller quantity of the aloes, as in the following formula:—

℞. Pulv. aloes soc.,
Ext. opii aq., } āā gr. x.
Sapo. Cast.,

M. Ft. pil. No. 20. S. One morning and evening.

It is unnecessary for me to multiply formulæ, as the general principles by which I am guided will be sufficiently evident from the above.

In some cases I have not been consulted, and have not known of the hæmorrhoidal tendency of the patient until my attendance during labor. I have seen the hæmorrhoidal tumors sometimes become very large during the labor. Dewees says: "Much may be done during labor to prevent a severe spell of piles by the accoucheur making a firm pressure upon the verge of the anus with the palm of his hand, guarded by a diaper, during the progress of the head through the external parts, and by carefully returning them after the expulsion of the placenta, as the sphincter is now fatigued, and will not oppose their descent." I have frequently tried this expedient, but I cannot say that it has been very successful, as the tumors soon come down again, and under these circumstances they are very apt to become strangulated, inflamed, and cause a great deal of suffering. When I find this condition of things, I have within a few years past adopted the plan of forcible dilatation, recommended by my friend and colleague, Prof. Van Buren. My method is this: the patient being fully under the influence of chloroform, I select the moment after the delivery of the child and before the placenta is brought away. I push back the tumors within the sphincter, if I can readily; if not, I leave them alone, and introduce both thumbs, back to back, well in the sphincter, and opening them as wide as possible I draw them through the sphincter. During this time I have firm pressure made on the uterus by an assistant, and in several instances the operation was followed by the sudden expulsion of the placenta from the vagina. I direct the following ointment to be applied twice daily to the tumors, and well up in the rectum:—

℞.	Ung. gallæ co.,	℥j.;
	Ext. opii aq.,	℈j.;
	Sol. ferri persulph.,	ʒj.
M.	Ft. ung.	

The result has been in every instance that the tumors have gradually disappeared, and the patients have had very little suffering from the operation.

Where hæmorrhoids come on after labor, the suffering is generally much greater than when it occurs during pregnancy. They are very often induced by the action of the purgative given two or three days after confinement.

It is now many years since I have been convinced that castor-oil was one of the worst agents that could be used as a laxative when there is a tendency to piles, as in many instances I have seen its action develop them. For many years, I have annually spoken of this to the medical class before whom I have lectured, and I have received many letters from former students corroborating my statement by their own observation. But I have never seen this alluded to, except in one work—viz., Hardy and McClintock, on Midwifery and Puerperal Diseases, who incidentally make the following remark: "We may first observe that castor-oil is ill suited for patients who have hæmorrhoids, being very apt to produce in them tenesmus and considerable irritation of the rectum." I may add the following from Quain: "Common opinion has assigned to castor-oil a character for blandness (probably because of its being an oil) to which it is not entitled. It is an efficient purgative, but, except when given in minute quantities, it usually irritates the rectum."

In Wood and Bache's Dispensatory (article, Castor-oil) we find the following: "Some apothecaries are said to use it as a substitute for olive-oil in unguents and cerates; but the slightly irritating properties of even the mildest castor-oil render it unfit for those preparations which are intended to allay irritation." It is curious that its irritating action on the mucous membrane of the rectum has not attracted more attention.

In those who have, or are predisposed to have, hæmorrhoids, I give the following on the second day after confinement:—

℞.	Magnesiæ sulph.,	āā ℥ss.
	Magnes. carb.,	
	Potass. sup. tart.,	
	Sulphur. sublim.,	

Mix thoroughly. S. One, two or three, teaspoonfuls of the powder before eating in the morning.

This powder produces a soft evacuation without pain, even when the hæmorrhoids are inflamed. By procuring a daily evacuation with the powder, and the use of the ointment before mentioned, I have found the hæmorrhoids in puerperal women soon cease to give trouble.—*American Practitioner.*

Bibliographical Notices.

On the Use of the Ophthalmoscope in Diseases of the Nervous System and of the Kidneys; also in certain other General Disorders. By Thomas Clifford Allbutt, M.A., M.D. Cantab. London and New York: Macmillan & Co. 1871.

The author in his preface says, "that some considerable parts of the present volume have already been published in the various medical journals and society transactions, but little or nothing has been transferred to this book as it stood. Large portions have been re-written in order to add the results of more experience and to express maturer opinions." He thought it better "to exercise much reserve in printing his accumulated material, and to publish his own conclusions, with a few illustrative cases only, rather than to print a mass of such evidence as may be collected for himself by any practitioner who is interested in the subject." Still he has given us a book of 400 pages, about which and what is in it we desire here to say something. The author has from his various articles been pretty well known to the profession in this special branch of study, so that what he would have to say in a book would naturally be eagerly read and due deference paid to it. To those who have not known or heard of him, we would say that Dr. Allbutt some time ago was wise enough to see that he himself must master the ophthalmoscope and not be dependent on any ophthalmic surgeon for a report of the condition of the optic nerve entrance or retina in the cases his practice brought before him. We wish we could here quote his whole introductory chapter to show the spirit in which he went to work and in which he has prosecuted his studies and given us their results. This chapter, of some ten pages only, might well be quoted entire by medical journals for the benefit of their readers. Following this introductory chapter comes the book itself. He prefaces with explanations of the use of the ophthalmoscope, and how he manages it in special cases; then he explains the aspect, structure and connections of the normal optic nerve and retina. Next its variations from health in hyperæmia, anæmia of the disk and retina, œdema of the disk, ischæmia of the disks (choked disks), neuro-retinitis, chronic optic neuritis, retinitis, perineuritis, consecutive atrophy, primary atrophy. Now follows the relations between certain intracranial disorders and affections of the optic nerve and retina, in epilepsy, chorea, mania, dementia, meningitis (tubercular, pyæmia and fevers, syphilitic and rheumatic, of drunkards, traumatic), concussion and fracture, hydrocephalus, tumors and periostitis chronica, atheroma, softening and hæmorrhage, cerebritis abscess and sclerosis, general paralysis.

Chapter VI., the next, is on the ophthalmic signs of disease of the spine: then follow other chapters on the retinitis associated with albuminuria, leukæmic retinitis, on the amaurosis of diabetes, toxic amaurosis from alcohol poisoning, tobacco amaurosis, lead poisoning, hypnosis and narcosis, embolism of the central artery of the retina and its branches. The appendix sketches 123 cases illustrative of the text of the several chapters and constantly referred to throughout the book.

Following this we have a tabular view of 43 cases of *insanity with epilepsy*, in which the optic nerve and retina were seen and their appearances recorded; another, of 51 cases of *mania*; another, of 38 cases of *dementia;* another, of 17 cases of *melancholia* and *monomania*; another, of 12 of *idiocy;* another of 53 cases of *general paralysis.*

By perusal of the foregoing the reader of this notice will have obtained some idea of what the book treats of, but only a personal perusal of the book itself can give them any idea of the admirable manner and most excellent spirit in which it is written; the research in and fairness towards all foreign literature; the cautious deductions and modestly given conclusions of the aûthor, and not least his ready and repeated acknowledgments of others' works, whether quoted from or not. The faults of the book we do not desire to dwell on here, since there are so many other places for criticism open to those who desire to attempt it. We simply wish to call the notice of the profession to this admirable work, written in the true spirit of investigation. It is not a book for specialists, nor written for the ophthalmic surgeon. It is written for, and should be read by the general practitioner, who has to deal with the diseases here discussed, and now explained by the light of the ophthalmoscope. It will be, however, very welcome to all of us specialists, since we are, and must apparently for a long time be expected to report upon what we see in many of the above mentioned diseases, and thus help out the general practitioner in his diagnosis, precisely as we in our turn must apply to the special chemist to obtain a minute analysis of the urine or blood. To both the general practitioner and specialist the book is also very valuable, as it gives us both, in a certain sense, a common language. For instance, a patient is sent to me with some trouble of vision, as one of many symptoms, and I report back "marked *ischæmia* of both disks" to the attending physician. Now Mr. Allbutt's book will tell him in very attractive English, and very truthfully, what ischæmia of the disks is, and what it may signify in the present light of our knowledge, assisted by the ophthalmoscope. We do not mean at all to convey the idea that every doctor can or ought to be a good ophthalmoscopist, but we do hold that every general practitioner who attempts to treat or diagnosticate cerebral troubles should have the whole light of the ophthalmoscope, which fact Mr. Allbutt's book will prove to him if he will read it attentively. This he will not fail to do when he has once commenced, since the style is so attractive and the garb in which the publishers present it so pleasing to the eye. There are some excellent colored prints of ophthalmoscopic views in "congestion papilla" and "neuritis from lead poisoning," with other simpler wood-cuts. J.

Consumption and the Breath Re-breathed. Being a Sequel to the Author's Treatise on Consumption. By Henry MacCormac, M.D. London: Longmans, Green & Co. 1872. Pp. 154.

This brochure also contains an article entitled Carbonæmia the Immediate Source of Tubercle, read before the British Medical Association in 1867; and another, Tubercle and the Crucial Test, read before the same Association in 1868. The author endeavors to prove that by breathing air containing an abnormal amount of carbon, the individual becomes tuberculous. The remedy, according to him, is a simple one—abundance of fresh air. Dr. MacMormac writes with a great deal of force, still his line of argument would apply to chronic disease connected with other pathological conditions than the tuberculous. If the people at large could be compelled to adopt the advice given, there is no doubt that a very fertile source of debility might be removed.

A Practical Treatise on the Diseases of Women. By T. Gaillard Thomas, M.D. Third Edition. Philadelphia: H. C. Lea. 1872. Pp. 784.

The publication of three editions of Prof. Thomas's work within as many years attests not only the demand for such a treatise, but, no less certainly, its fulfilment. The merits of the book have been appreciated in the profession, and the author has come to be acknowledged as an authoritative exponent of the modern ideas of the subjects which he considers.

This new edition comes to us thoroughly revised, with several entirely new chapters, and embellished with an increased number of illustrations. A work so well done and so well known needs no special commendations at our hands.

Report on the Progress of Ophthalmology, made to the American Ophthalmological Society, 1871. By B. Joy Jeffries, A.M., M.D. Pamphlet. Pp. 59.

Dr. Jeffries presents, as in the four previous years, a succinct *résumé* of the advances made in ophthalmology, gathered, with evident care in selecting, from the literature of the specialty. This compendium of home and foreign writings must be of great value, for reference, to those engaged in the study and practice of ophthalmology, and the Society which represents the science in America could hardly have made a better choice of a committee to give the annual abstract of ophthalmological progress.

Diagrams of the Nerves of the Human Body. By W. H. Flower, F.R.C.S., &c. Edited, with additions, by W. W. Keen, M.D. Philadelphia: T. Hamilton. 1872.

The charts of the nerves designed to facilitate the study of a difficult branch of anatomy, and published some years since by Mr. Flower, are here reproduced on a much smaller scale than the original, and are admirably adapted to aid dissecting or to assist the teacher. The engraving of the plates is unexceptionable, and the accompanying explanations are concise and sufficiently clear to fulfil the design of the work.

On Vascular Nævi and their Treatment by the actual Cautery. By B. F. Dawson, M.D. Re-printed from the *American Journal of Obstetrics,* November, 1871. Pamphlet. Pp. 20.

The author has presented in very readable shape whatever is known of cutaneous and subcutaneous nævi, as regards their anatomy, pathology and radical treatment. In addition to the various methods practised for the obliteration of these growths—coagulating injections, compression, the ligature, vaccination, excision and potential caustics—Dr. Dawson describes and highly commends the use of the actual cautery, the red-hot, bulb-pointed iron being applied repeatedly to the surface of the tumor until non-vascular cicatrices result. Six cases are cited to show the successful results of this treatment.

An Excellent Idea.—The Board of Managers of the Pennsylvania Hospital have adopted a system of quarterly meetings with the medical and surgical staff, which, it is believed, by facilitating direct interchange of views, will increase efficiency and be a more systematic means of ascertaining and correcting any mismanagement, and also of introducing improvements.

Medical and Surgical Journal.

Boston: Thursday, May 16, 1872.

THE REGENERATION OF NERVES.

M. Vulpian has presented to the Biological Society of Paris the results of a large number of experiments upon the various lesions of nerves, so far as they relate either to the restoration of the nerve tissue or to changes in the muscular contractility, and an abstract of his observations is published in the number of *L'Union Médicale* for Jan. 9th ult. He compared, in his studies, the consequences of section of the nerve, of its division by écrasement and of its transfixion by means of a fine needle dipped in acetic acid or in oil of turpentine. He operated on the sciatic, the hypoglossal, the pneumogastric, and other nerves. The changes observed were in all cases identical, whatever the method of experimenting; except, however, that regeneration of the nerve was more rapid after écrasement than after section. The effect on contractility was also quite constant; in no case was the power wholly destroyed, it was only lessened, the degree of impairment being greater in cases where division by section was practised. The author observed, moreover, that whatever the nature of the lesion produced on the sciatic nerve, epilepsy always supervened, in such cases, in his experiments on guinea-pigs. Transfixion of the pneumogastric in dogs by a needle charged with acetic acid gave rise to the same effects as division of the sympathetic.

Food of Fever Patients.—In one of the instructive lectures on the Treatment of Fever, recently published in the *Medical Times and Gazette*, Dr. Lionel S. Beale says: "For many years past, I have been in the habit of adding pepsin and hydrochloric acid to the beef-tea that is given in very bad cases of fever, and I am sure with the greatest advantage. The stomach is relieved and a comparatively large amount of nutrient matter digested and absorbed within a given time. By this plan the tympanitic state of the abdomen, which is sometimes so distressing, is relieved in the course of a few hours, and its recurrence prevented during the illness." Three or four grains of pepsin and ten to twenty drops of dilute hydrochloric acid are mentioned as the requisite doses in such cases, to be added to a cupful of the nutriment, milk or beef-tea.

Association of American Medical Editors.—A meeting of the members of the Association was held at Horticultural Hall, Philadelphia, on Monday, the 6th inst. The President, Dr. B. F. Dawson, of New York, presided.

The Secretary read the articles of association and the minutes of the last meeting.

The following members of the Association were present:—

Dr. B. F. Dawson, of the *American Jour. of Obstetrics*; Dr. S. W. Butler, of the *Medical and Surgical Reporter*; Dr. Stone, of the *Northwestern Medical and Surgical Journal*; Drs. D. W. Yandell and Theophilus Parvin, of the *American Practitioner*, and Dr. N. S. Davis, of the Chicago *Medical Examiner*.

The following resolution was unanimously adopted:—

Resolved, That the annual prize of $100 be offered by this association for the best essay on some subject, to be decided upon at each annual meeting, and the same to be open for competition to all medical editors belonging to this association.

On motion, a committee was appointed to recommend a suitable subject for the essays of the coming year.

At 8 o'clock in the evening the association re-assembled to listen to the annual address by Dr. Dawson, the President. He took for his subject, "The Origin of Medical Science."

After the transaction of incidental business the meeting adjourned.

A Cause of Death after Operation for Strangulated Hernia is pointed out by Mr. Bryant, of Guy's Hospital, in a recent clinical lecture. It consists in the subsequent contraction of the portion of bowel which had been strangulated, due to inflammation in the submucous and peritoneal coats and resulting in a stricture of the intestine, which becomes impermeable. The symptoms of this condition supervene at varying intervals after the reduction of the hernia, and consist of irregular action of the bowels—sometimes constipated, sometimes loose; griping abdominal pain, and, finally, intractable vomiting. Fortunately, such an untoward result of strangulation in cases which survive operative measures for any length of time is believed to be very rare.

A Novel Application of Hemp.—The Dublin Obstetrical Society, at one of its recent meetings, devoted the greater part of an evening to the discussion of the use of hemp ligature as a saw, for the removal of intra-uterine and vaginal tumors, and for decapitation in cases of transverse fœtal position in labor. Dr. McClintock spoke highly of this method in extirpating polypi, and reported a case. A married lady came to him, reporting severe and repeated vaginal hæmorrhage. A large polypus was discovered in the vagina, its size that of a turkey's egg, and its neck an inch in diameter. The tumor was drawn well down toward the vulva, and a loop of fishing line, introduced through Gooch's double canula, was cast around the pedicle, and in thirty-five seconds, by a sawing movement, the section through the neck of the growth was completed. The operation was facile, expeditious, dry and painless. The ligature was used through the canula with a view to protect the vagina from injury by friction.

Dr. Kidd exhibited the body of a fœtus, decapitated in the process of delivery by the method under discussion. The child was presenting transversely and was dead. The cord was passed around the neck of the fœtus by means of a catheter, and the section was completed in a minute and a half. The whole operation of delivery was accomplished in twenty minutes. Dr. Kidd remarked that if the practitioner had a cephalotribe beside him, he need not fear the risk of the head remaining in the uterus.

Abortive Treatment of Gonorrhœa.—M. Ledeganck, of Brussells, has published a memoir containing new researches on this subject. The treatment of blenorrhagia, he says, may be divided into the abortive and the curative. The first attacks the affection at its commencement, and produces a sudden and profound modification of the conditions present in the inflamed mucous membrane, reducing the specific phlegmasia to the state of simple inflammation curable by natural processes. Amongst the means adopted to obtain this effect, nitrate of silver and tannin in solution are the most common. The last agent, however, he has not found very serviceable, at least when dissolved in red wine, in the proportion of three grammes of tannin to one hundred of wine. He has not had much greater success with nitrate of silver in the dose of one to two grammess in thirty of water, and this he attributes, first, to the injection being made at an injudicious period, and, secondly, to an improper *modus operandi.* The abortive treatment, he thinks, should not be applied before the inflammation has attained a certain height; and, on the other hand, it is not suitable for the stage of acute inflammatory urethritis. Pathological anatomy should alone enable the precise moment to be determined when the inflammation of the urethra can be abolished by the employment of a caustic. The redness and swelling at the orifice of the meatus have long been considered the objective signs of commencing urethritis. It is, in fact, in the fossa navicularis that the great majority of cases commence, and it is from the examination of these parts that Dr. Ledeganck draws his conclusions as to the right time to apply the caustic. Fifteen or twenty hours after an infecting coitus the vessels of the parts are injected, exactly limited to the frænum, and stopping almost at the borders of the meatus; on the second day the injection has extended to the interior of the navicular fossa. In order to examine this, the lips of the meatus must be separated by introducing a smooth cylinder of thin glass, about the size of a No. 12 catheter. It will then be found that the mucous membrane presents a port-wine hue, which springs from the anterior lip of the meatus and extends down the canal in the form of two or three descending and diverging striæ. On the third day the port-wine tint has become intense, the part so colored has the form of a myrtle leaf, with the base at the anterior border of the meatus, and the apex about three-fourths of an inch down the passage. The anterior fold of the mucous membrane occupies the position of the median raphé. After the third day the injection extends rapidly towards the deeper parts, and its limits can then no longer be accurately fixed. Now, M. Ledeganck maintains that the abortive treatment can only be successfully employed from the first to the third day of the attack; in other words, during the period that the local phlegmasia is limited to that portion of the urethra which is accessible to sight. Again, he considers the mode of application not less important than the time. Solutions of nitrate of silver should be eschewed, since their action cannot be limited to the parts affected, and also because they require to be repeated, whereas a single application of the solid nitrate is sufficient. He takes one of the ordinary sticks and envelopes it in a piece of thin tissue paper, which last he again removes from one side, so as to expose a sufficient surface; then glides it into the fossa navicularis to the depth of three or four centimetres, always taking care that the denuded surface of the caustic is directly forwards. It is then gently withdrawn towards the orifice, applying it to the anterior fissure of the mucous membrane. On arriving at the meatus, it is gently rotated to the right and left, and the operation is completed. On examination, the navicular fossa is now found covered with a white pellicle, which separates like a true eschar in the course of two or three days. The application of the caustic produces sharp pain, but never occasions any serious accidents. The whole duration of the treatment does not, in general, exceed a week.—*Journal de Médecine, &c.*

Visible Pulsation of the Arteria Centralis Retinæ in a case of Incompetency of the Aortic Valves. By C. E. Fitzgerald, M.B. Ch. (Dub.), Assistant-Surgeon to the National Eye and Ear Infirmary, Dublin.—At the Heidelburg Ophthalmological Congress held in September last, Professor Becker of Heidelberg, as my colleague Mr. Swazy informs me, read a paper on Visible Pulsation of the Arteria Centralis Retinæ in cases of Incompetency of the Aortic Valves, and also showed a patient who exhibited the phenomenon. Quite recently I have had an opportunity of examining a well-marked case, which appears to me possessed of sufficient interest to make it worth while recording.

The patient is a man aged 40, who was admitted into the Infirmary of South Dublin Union on the 3d instant, under the care of Dr. W. B. Jennings, to whose kindness I am indebted in granting me permission to publish the following particulars. I do not think it necessary to give the history of the case; suffice it to say, that all the symptoms of incompetency of the aortic valves were present, and very well marked.

On the first occasion on which I examined the patient's eyes, I was able to detect in the right eye (the pupil being partially dilated with atropine) a very distinct pulsation of one of the retinal vessels, immediately at its point of emergence from the optic disc; this portion of the vessel presented such a dark purple color, that, combined with its close proximity to one of the veins, which were somewhat congested, I failed to satisfy myself completely as to whether the pulsation was in the artery or in the vein. On a subsequent occasion, I again examined the patient several times, but was still unable to settle this point; a few days later, however, I dilated the pupils fully with atropine, and used a four-inch in place of the ordinary two-and-a-quarter-inch convex lens. The large image thus obtained enabled me to determine clearly that the pulsation was certainly in the artery. Moreover, by resting the little finger of my left hand on the temporal artery, I found that its pulsations and those of the retinal vessel were synchronous.

It was in a portion of the superior branch (inverted image) of the arteria centralis, extending from its point of emergence to where it crossed over one of the veins, that the pulsation was visible; and I am inclined to think the difficulty of determining as to whether it was in the artery or vein was caused by the column of blood at each pulsation projecting this portion of the artery forwards; the rays of light were consequently no longer reflected directly from the walls of the vessel, which, in fact, became foreshortened and partially thrown into shade. I was unable to detect any pulsation in the retinal vessels of the left eye.

I may mention that there was no increase of tension in either eye; in fact, the tension of the right eye was, if anything, below the normal.

Dr. Becker states that the phenomenon is not invariably present in cases of incompetency of the aortic valves, nor is it at all times visible in those cases in which it has been observed. It was previously noticed by Dr. Quincke, assistant to Dr. Frerichs. —*Brit Med. Jour.*

Disease of the Kidneys Produced by Urethral Gonorrhœa.—This obscure disease, consequent upon gonorrhœa, Dr. Zeissl remarks, is frequently to be ascribed to the large doses of the resinous diuretics given during gonorrhœa. In the demonstration of the ill effects of these medicines upon animals, Schroff and Beckmann were unsuccessful, because the animals employed in the experiments are tolerant of the acrid diuretics, while in man, sometimes after a slight use of these medicines, hæmorrhages and ecchymoses of the neck of the bladder occur. From these latter (which, however, may occur in gonorrhœa without the previous exhibition of diuretics) the hyperæmia may certainly extend *per continuitatem* as far as the papillæ of the kidneys, and into the tubuli, and thus produce a nephritis desquamativa, though not, however, a nephritis diffusa.—*Oesterr. Zeitsch. Prat. Heilk.*

Clay Dressings for Variola.—Dr. E. S. Bunker, in a note to the *Medical Record*, says:—"During the recent epidemic I used clay-dressings for two pretty decided cases of confluent smallpox. Both patients were young women. One, a married lady, aged 23 (delivered on the second day of a six months' fœtus), made a fair recovery, took cold after getting up, and in a few days died suddenly of empyema and pericarditis; diagnosis confirmed by autopsy. The other, single, aged 21, had the disease with great violence, recovered rapidly, and is now well. In each case I dusted finely sifted pipe-clay over the face as soon as the pustules became fairly developed. This formed immediately a clean, dry, wholesome scab, abolished the intolerable itching and burning, served apparently as a good absorbent of infectious material, and scaled off during convalescence, leaving underneath a soft, natural integument. There was no disfigurement in either case."—*New York Medical Journal.*

Influence of Movements of the Uterus on the Vomiting of Pregnant Women.—Dr. Aubert (*Lyon Med.*, Oct. 15), says that the pains and accidents attributed to uterine deviations or deformities of the uterus are not due to the sole fact of the deformity or deviation, but are caused by the movements and shocks which the displaced uterus undergoes. In all cases of uterine displacement there are two elements to be taken into account, the anatomical and the locomotor, the first consisting in alteration in position and form, the second in the movements or shocks which the displaced organ undergoes. Both of these appear to be met with in pregnancy. Thus it is found that rest in bed will sometimes cause the vomiting of pregnancy to cease, but not always. Vomiting in pregnancy comes on generally at two periods of the day—firstly, in the morning, when the patient begins first of all to move in the bed, and when she rises. This is the most common time. The early months of pregnancy, too, when the uterus is less intimately connected with the other organs, and thus more mobile, is the epoch of vomiting. The author recommends in some cases the use of pessaries in bad cases of vomiting in pregnancy, in order to keep the uterus motionless.—*Dublin Med. Press and Circular.*

Treatment of Condylomata by Carbolic Acid.—Dr. Boise (*Allgem. m. Centbl.*, 1870, 90 St.) recommends the use of pure carbolic acid in these formations. The condylomata are attacked by the acid in all the thickness of their tissues, and then assume a dullish white color; the neoplasm falls entirely after a single or a few applications of the remedy, without leaving behind any ulcer. This method of treatment, says the author, is preferable to any other. The acid may be used in a liquid form with a brush; it has no tendency to extend beyond the diseased parts. When carefully applied, it never causes any notable inflammation of the neighboring parts, nor any pain worth mentioning. It appears that this treatment is radical, for up to this time he has not noticed any relapse.—*The Doctor.*

Precocious Development.—Fluegel describes in the *Bayr. ärtzl Intell.-Blatt* (No. 49, 1871) the case of a female child who died of diarrhœa at the age of 5½ years. She was five feet in height. The incisor teeth had all appeared when she was six months old, and at nine months she had all the molars. At a year and a half old, she menstruated; and, especially in her later years, the periods were tolerably regular. The external genital organs were well developed, without hair; the breasts were full, and the pelvis roomy. The condition of the internal genitalia was not ascertained. As regarded her intellect, she did not appear to be in advance of other children of her age, although she had begun to speak when six months old.—*British Med. Journal.*

Medical Miscellany.

We are obliged to defer our report of the Convention at Philadelphia until next week.

Dr. Brown-Sequard will return to Boston in September, and deliver his course of lectures at the Medical School.

The Milk Supplied to the London Hospitals appears not to be above reproach. Recent inspection of the article, as supplied to eight of the metropolitan hospitals, discovered the fact that not one of the specimens was up to the standard of unsophisticated milk. The adulteration consisted chiefly of water; and the sample obtained from St. Bartholomew's contained almost as much of water as of milk.

Dr. J. M. DaCosta has been elected to the Chair of Theory and Practice of Medicine in Jefferson Medical College, Philadelphia, in place of Prof. Samuel H. Dickson, deceased.

At the late annual meeting of the Franklin Dist. Med. Society the following officers were elected: *President*, William Dwight, M.D., of Bernardston; *Vice-President*, E. A. Dean, M.D., of Montague; *Secretary* and *Treasurer*, A. C. Walker, M.D., of Greenfield; *Commissioner of Trials*, E. Barton, M.D., of South Orange; *Censors*, Drs. A. E. Kemp, C. A. Packard and C. L. Fisk; *Councillors*, Drs. J. W. D. Osgood, A. C. Deane, C. M. Duncan and J. R. Fairbanks.

The British chemists and druggists have contributed £450 in cash, and books and specimens to the value of, at least, £100, to their brother sufferers in Chicago. This is in addition to subscriptions to the public fund for the benefit of Chicago.

Measures are being taken to establish a special hospital for diseases of women in Vienna. Twelve thousand florins have already been subscribed, and a suitable building has been secured.

Sarcina in Blood.—Dr. Ferrier, of King's College, London, calls attention to a curious fact which he has just discovered, of great importance in reference to the much-discussed subject of disease-germs. He states that the peculiar microscopic organism, the *sarcina ventriculi*, which has hitherto been found almost exclusively in diseased conditions of the stomach, exists in an undeveloped state constantly in the blood of the lower animals and in human blood, both in health and disease. Dr. Ferrier further states that the minute particles which are constantly found in vaccine lymph, and which have been supposed to be the active agents of the vaccine virus, are nothing more than undeveloped *sarcinæ*.—*British Medical Journal.*

Estimation of Fat in Milk.—A. Schukoffsky mixes 20 cc. milk, 20 cc. ether, and 30 cc. strong alcohol, and sets the mixture aside for twenty-four hours; milk sugar crystallizes out and casein is precipitated in flocks, and may be readily washed upon a filter with ether and alcohol. From the filtrate the ether is distilled off, then the alcohol evaporated completely in a water-bath; the residuary liquid is now treated with ether, the ethereal solution removed by means of a separatory funnel, and finally evaporated to recover the fat. —*American Journal of Pharmacy.*

The Anatomy of Suicide.—The Academy of Sciences has received a paper in which M. Descaisnes seeks to explain the excess of suicide which has long distinguished Paris. With all our November fogs, we have but one voluntary death in 175—a sufficiently distressing proportion. Paris has one in 72. With us, the proportion tends to decrease; in Paris, unhappily, it continues to augment. M. Descaisnes invokes as causes: 1, the democratic fury—*morbus democraticus*—a purely imaginary and ideal cause, inasmuch as in the most democratic country in the world, America, the suicides are most infrequent; 2, the weakening of religious faith; 3, the progress of alcoholism.—*Brit. Med. Jour.*

To Correspondents.—Communications accepted:—Cases from Practice.—Clinical Observations on Contagious Impetigo.—The Circulation in Sea-sickness.

Books Received.—A Treatise on Diseases of the Bones. By Thomas M. Markoe, M.D., Professor of Surgery in the College of Physicians and Surgeons, &c. New York: D. Appleton & Co. 1872. Pp. 416.—A Treatise on the Diseases of Infancy and Childhood. Second Edition. By J. Lewis Smith, M.D. Philadelphia: H. C. Lea. 1872. Pp. 741.—The Works of Sir James Y. Simpson, Bart., M.D. Vol. III. Clinical Lectures on the Diseases of Women. New York: D. Appleton & Co. 1872. Pp. 789.

Deaths in fifteen Cities and Towns of Massachusetts, for the week ending May 11, 1872.

Cities and Towns.	*No. of Deaths.*
Boston	168
Charlestown	18
Worcester	23
Lowell	26
Chelsea	9
Cambridge	27
Salem	8
Lawrence	2
Lynn	11
Fitchburg	6
Newburyport	10
Somerville	5
Fall River	18
Haverhill	5
Holyoke	6
	342

Prevalent Diseases.

Consumption	63
Pneumonia	42
Scarlet fever	12
Croup and Diphtheria	12
Smallpox	9

There were eight deaths from smallpox in Boston, and one in Cambridge.

George Derby, M.D.,
Secretary of State Board of Health.

Deaths in Boston for the week ending Saturday, May 11th, 168. Males, 76; females, 92. Accident, 2—abscess, 2—apoplexy, 4—inflammation of the bowels, 1—bronchitis, 5—inflammation of the brain, 1—disease of the brain, 3—cancer, 2—cerebro-spinal meningitis, 1—cholera infantum, 2—consumption, 34—convulsions, 7—croup, 2—debility, 1—dropsy, 1—dropsy of brain, 6—diphtheria, 3—erysipelas, 4—scarlet fever, 4—typhoid fever, 4—gangrene, 1—gastritis, 1—disease of the heart, 10—homicide, 2—intemperance, 2—jaundice, 1—disease of the kidneys, 7—disease of the liver, 1—congestion of the lungs, 8—inflammation of the lungs, 12—marasmus, 3—measles, 2—old age, 2—paralysis, 2—premature birth, 3—purpura hæmorrhagica, 1—peritonitis, 1—puerperal disease, 3—rheumatism, 2—smallpox, 8—disease of the spine, 1—tetanus, 1—teething, 1—ulcer of stomach, 1—unknown, 3.

Under 5 years of age, 58—between 5 and 20 years, 14—between 20 and 40 years, 43—between 40 and 60 years, 34—above 60 years, 19. Born in the United States, 104—Ireland, 48—other places, 16.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

NEW SERIES.] THURSDAY, MAY 23, 1872. [VOL. IX.—NO. 21.

Original Communications.

COTTON WOOL AS A SURGICAL DRESSING.

By WM. WARREN GREENE, M.D., Professor of Surgery in the Medical School of Maine.

FOR at least five years past I have used the cotton wool almost exclusively as a dressing for wounds where I desired or expected union by "first intention," and for two years past have, to a great extent, substituted it for the carbolic acid dressings in the treatment of abscesses and suppurating surfaces. So gratifying and satisfactory, to my own mind, have been the results, that I am inclined to make a simple statement of facts for the benefit of the profession.

It is very likely that the use of this article is more common with surgeons than I am aware, but that it is not extensively employed, except for burns and scalds, I infer from the absence of any notice of it in the books or journals, and from the fact that among my acquaintances I know only three who had employed it to any extent, until I brought it to their notice. Of these all had employed it for its elasticity and lightness.

To Prof. Robinson, of this city, I am indebted for the suggestion of the employment of the particular form which I find preferable to all others, the "French wadding," which is made of the purest cotton, is thick, very soft and elastic, slightly glazed on the one side, and on the other presents a beautiful, soft, fleecy surface. Dr. Robinson has used it many years, "for its lightness and elasticity," with the same results as I have observed in securing union by first intention. Dr. Tewksbury, of this city, and Dr. Fuller, of Bath, have both employed it for the same reasons and with the same results.

After quite an extended observation of its merits as a light, neat, elastic dressing, simple and easy of application, and especially agreeable to the patient as compared with other appliances, and finding that, apparently, the healing process under its influence was remarkably rapid and favorable, it occurred to me that there must be some other quality operating than those mentioned which contributed to the, sometimes, wonderful results; and I had only to refer to the experiments of Pastein and a host of others upon the vexed question of spontaneous generation, to infer that its capabilities of filtering the air of all spores or germs might, or even must, be one of the main reasons why wounds thus dressed were so free from inflammatory or suppurative action.

With this view, I have extended its use to the treatment of abscesses and suppurating surfaces, as well as to that of simple incised wounds.

I do not think it proper to burden the reader with details, for I only desire to stimulate my brethren to make a fair trial of it, feeling sure that their own experience will at once convince them of its value.

In the case of ordinary wounds, either accidental or resulting from surgical operations, I have, in the last five years, *rarely seen one that did not unite by first intention*, excepting, of course, in the track of ligatures. A few cases in illustration will suffice. At my clinic in the Medical School of Maine, last spring, I amputated the thigh, at the middle, by the circular operation, and the wound, dressed with the simple cotton compress, united at every point by first intention, except in the track of the ligatures. It is hardly necessary to say that this exception obtains in every case. In ten ovariotomies I have dressed the abdominal wound in this manner, and in every instance the union has been perfect without any suppuration.

In a case of morbid growth (epithelioma), where, with the assistance of Drs. Wood and Dana, I made a very deep dissection of the external genitals of a female, removing a large amount of tissue and leaving a very deep and extensive wound, under the cotton compress, firmly applied, perfect union occurred, without a drop of pus, within the week. In the case of a mammary tumor, weighing five pounds, removed in the presence of Drs. Robinson, Gerrish and others, the same result occurred.

I amputated the thigh of a young lady in this city, at the middle, by transfixion, Drs. Wood, Weeks, Small, Gerrish and others, present and assisting, and union by first intention occurred at every point under the simple cotton wool compress.

I amputated the thigh of Mrs. ——, close below the trochanters, by the circular method, Drs. Wood, Gilman, Dana, French, Gerrish, Hunt and Weston, present and assisting, and under the same simple dressing the same union by first intention took place.

I removed a fatty tumor from a young man's shoulder, which weighed four pounds, dressed it in the same way, and in four days the wound was entirely healed.

I assisted Dr. Tewksbury in amputating a thigh at the junction of lower and middle third, in which he made the antero-posterior flaps by transfixion, and dressed with cotton wool; union by first intention sealed the surfaces everywhere, except in the track of the ligatures.

I have recently made a series of seven plastic operations upon one patient for the restoration of the nose, lips, and part of one cheek, a case which most of the surgeons of Portland have seen, and which I exhibited to my class last spring, and under the same simple dressing every line of incision, after each operation, has healed by first intention.

I merely give these cases as illustrations of what is the result in my own, and, so far as I know, in the practice of others, who use the same dressing. Of course, under any plan of treatment not positively harmful, *exceptional* results happen that are equally good. But from what I may safely call an ample experience, I have never seen any management under which wounds heal so rapidly and with such freedom from inflammation or suppuration as this.

I feel very sure that any surgeon, having once given it a fair trial, selecting a pure, nice article of wadding, will never use any other dressing for simple incised wounds; and while I attribute much to the lightness and *elasticity* of the material, through which we secure, with comfort to the patient, equable, elastic pressure over the entire surface, I am inclined to attach great importance to its action as a filter. Certainly, this must be true, if the importance of atmospheric germs as exciting causes of inflammatory and suppurating processes is properly estimated by the profession at the present time.

Then why not carry its use further, and apply it to the treatment of abscesses and suppurating surfaces?

I desire here to call attention to a very important fact, and to this point the attention of Dr. Gerrish, a most careful observer, who was my assistant for a year and a half, as well as my own, has been especially directed. *In all the cases of recent wounds dressed with cotton wool, when the compress was so carefully applied as to exclude air around the edges, whether the wounds were closed or open, incised or lacerated, we have never seen a drop of pus upon raising the compress the first time.* When oozing has occurred, we have found the cotton coated with dried blood and lymph, but *no pus.*

I may state, parenthetically, that after such dressing I am very slow to disturb the dressing so long as no symptoms of inflammation are developed. Avoiding, if possible, all lotions, fomentations or anything of the sort, I am anxious to retain the primary dressing as long as practicable.

I have no desire at this time to discuss the comparative merits of the carbolic acid treatment which, thanks to Prof. Lister, has attained a world-wide reputation. I have used it extensively and satisfactorily, and assuming the power of this agent to *destroy* atmospheric spores, its superiority over any agent that merely excludes them is apparent *in certain cases.* To what extent such specific action is necessary, I do not now propose to inquire, but I must say that I believe the same amount of care as to cleanliness and *exclusion of air by any means,* without carbolic acid, as are requisite to its employment, as recommended and practised, would give such results as to temper somewhat the zeal of its warmest advocates; and, again, that with the same care and caution I have, for the last two years, employed the compresses of cotton wool in place of the carbolic acid putty, with effects quite as satisfactory, and with more comfort to myself and patients.

It will not be denied that so far as exclusion of germs is concerned, the cotton is quite as efficient as the putty or compresses wet with the acid or acid spray. The only question is as to the necessity of a *germ-destroying* agent. And, after all that has been said and is believed and practised, on this point, there is, as I believe, an opportunity for much thought and impartial observation. As I have before said, I do not propose any inquiry in this direction in this paper. I only desire to lay before my brethren these simple statements of my own experience, that they may test the value of this simple and certainly harmless dressing.

Portland, Feb. 10th, 1872.

CASES OF TRACHEOTOMY.

By Geo. W. Gay, M.D.

H. T. G., æt. 6½, "caught cold" the first week in February of the present year. Very little was thought of it till a week later, when the cough became severe and the breathing laborious. Dr. J. E. Walker was called, and found the little fellow suffering with great dyspnœa; face pale and lips livid. When first seen by me, at 10, A.M., of that day, in consultation with Dr. Walker, air was entering the lungs fairly; there were some dry râles, but the principal obstruction seemed to be in the throat, although no membrane could be seen there. Patient was conscious and answered questions well enough, but said he "felt drunk." P. 136. Respirations 30–40. An unfavorable prognosis was given, and tracheotomy advised, with the idea of giving him the last chance for life or an easy death. The parents readily agreed to the proposition, and tracheotomy was done *without ether*. The first incision seemed to hurt the patient a little; he put up his hand, but there was no fear and no struggling. After the first incision through the skin there was no more trouble, and the operation was finished as leisurely as it could have been under ether. As soon as the tube was introduced and a little bloody mucus was thrown out, the patient breathed easily and dropped asleep. Room ordered to be kept warm and the air as moist as possible with boiling water and hot bricks. To take milk and brandy. Ammon. carbonat. gr. i. every hour. 3, P.M.—Sleeps much of the time. Pulse 120–130. Respirations 30, and easy. Some dry râles in lungs. Tube lined with a very tenacious substance, and cleaned with difficulty. Takes nourishment well. 9, P.M.—Pulse 120–130. Respirations 28–30. Bright and playful and perfectly comfortable; condition in decided contrast with that of 12 hours before. Running at nose; no râles in lungs. Tube more moist; *not* gummed, and easily cleaned. Continue treatment.

Feb. 11th, 9, A.M. — Semi-conscious. Pulse 140–160. Respirations 40. Trachea and bronchi filling with mucus. He slept well and took his food till near morning, when his breathing became shorter and he began to lose his senses, but there was no suffering from suffocation, as before the operation. He died very easily, at 10½, A.M., twenty-four hours after the operation. No membrane was seen at any time; but the symptoms, mode of attack and exclusion of other diseases seemed to point to true croup as the most rational diagnosis.

The great and instant relief which this little fellow experienced justified the operation in all our minds, although we felt that the ultimate result of the disease was almost sure to be fatal. We think few parents, having seen this case before and after the introduction of the tube, would ever, in similar circumstances, refuse a child this comfort, even if they knew his life could not be saved; relief always follows the operation, life is prolonged and sometimes saved, and death made comparatively easy. As soon as respiration becomes laborious in true croup, we would open the trachea and let the patient breathe warm, moist air, and thereby prevent the waste of strength in breathing through a narrowed glottis; the operation, done with ordinary skill at this stage of the disease, is never fatal and rarely dangerous.

Should there be much exhaustion or carbonic acid poisoning, we would not use ether in the operation. Most hospital surgeons have seen respiration stop entirely, when ether is used under these circumstances, and reinstated only by a hasty tracheotomy and persistent artificial respiration. We remember two such cases at the City Hospital within the past year. The pain is comparatively slight, and the patient is too anxious for his breath to have any fear or dread of the operation.

Foreign Body in Bronchial Tubes. Tracheotomy. Recovery.—Miss W., æt. 16, while chewing sweet flag root (acorus calamus), during a fit of laughter, drew a piece into the trachea. Violent coughing followed immediately, and continued at intervals for three days, before medical aid was called. Dr. Fleaman, of Wilton, N. H., where the young lady lived, was summoned and gave her morphia with temporary benefit. Four days after the accident, the patient was seen by the writer, in company with the attending physician, and Dr. T. B. Dearborn, of Milford. She was being supported in an upright position in bed, breathing with great difficulty. The respiration was hurried, laborious, and somewhat resembled hysterical dyspnœa. She had violent coughing spells, and a severe pain in left side at lower edge of ribs; there was no lividity or sign of insufficient aëration; moist râles at upper part of both lungs; respiratory sounds very faint in lower half of right lung, much more so than in left;

no dulness. Pulse feeble and patient weak. Takes very little nourishment and has slept little since the accident. Patient was etherized, and respiration became easy, but the physical signs remained unchanged.

The trachea was now opened in the usual manner, and the first expiration threw the offending substance half way across the room; it was of the size of a pea and was slightly softened. The tracheal wound was left to itself, but the external incision was partially closed with sutures. One hour after the operation there were fewer râles, and air entered the lungs much more freely than before. The wound in the throat troubled her very little; she had no more dyspnœa; the cough and the pain in the side gradually subsided, she made a complete recovery, and is well at the present time.

Œdema of the Glottis. Tracheotomy. Recovery.—The following case came under the writer's care when on service as Dr. Cheever's house-surgeon, at the City Hospital, in 1867.

D. H., colored, æt. 26, carpenter, entered the hospital, May 3d, with enlarged and suppurating glands in the neck, which had troubled him fifteen months. When first seen, at 6, P.M., he was very feeble, though able to walk to the hospital; he was stupid, and answered questions very slowly; said he had eaten nothing for five days, as he could not swallow; could open his mouth only about half an inch; drank a little milk with considerable difficulty. No dyspnœa or trouble in chest, nor had he any other difficulty except that above mentioned. Ordered to be put to bed, poultice to neck, and to have an enema of beef-tea and brandy. 10, P.M.—Coughing up a little frothy mucus; otherwise same. Morph. sulph. gr. ¼ subcutaneously.

May 4th, 1, A.M.—Called in great haste by the night watch, who said there was "some trouble with that new patient's breathing." Reached him just in season to see him gasp once and then stop breathing entirely. Pulse barely perceptible. The trachea was hastily opened with a knife from an ordinary pocket case, and was held open with scissors and a finger till a tube could be procured. Respiration, which had ceased for nearly or quite a minute, began again with the usual expulsion of mucus and blood. He soon had a most violent fit of coughing, during which Dr. Cheever entered the ward and ordered a quarter of a grain of sulphate of morphia injected into the arm. He soon became quiet and was removed to the steam-room. Entirely unconscious. Enema of brandy and milk. 3, A.M.—Pulse 132. Respiration quiet and easy. 5, A.M.—Pulse 120. Respiration 20. No râles in chest. Tube lined with thin mucus and easily cleaned. Sleeps most of the time. Repeat injection every three hours. 7, A.M.—Pulse 112. Still unconscious. 10, A.M.—Pulse 120. Partially conscious. Urine drawn with catheter. 4, P.M.—Pulse 98. Respirations normal. Patient has his senses.

May 7th.—Tube removed. Respiration easy and natural. Takes solid food.

May 21st.—Glands are much diminished in size, and the suppuration has nearly stopped. Wound of operation closed. He is much better in every way than when he entered the hospital. Discharged this day at own request. He was soon entirely well, and at work at his trade; he had no further trouble with neck or throat for four years; since then he has been lost sight of.

Boston, May, 1872.

THREE CASES OF VACCINATION FROM A SYPHILITIC SUBJECT.

By W. F. Munroe, M.D., Physician to the Boston Dispensary.

At the present time, when vaccination and re-vaccination are so imperatively demanded by the public safety, popular prejudices as to inoculation of blood-poisons and "humors" do a vast amount of damage, and any facts which aid the truth are of value.

In the summer of 1866, when smallpox was prevalent, I vaccinated a robust looking infant, two weeks old, with virus from a healthy child, aged about one year, of whom there could be no suspicion. The progress and character of the vesicle were perfectly normal, and on the seventh day I charged a small number of points, of which I used but three. With these I successfully vaccinated two children and one adult. Three weeks after I had taken the virus from the first case, I was sent for to see the child, then five weeks old, and found it covered with a perfectly characteristic rash, and also learned that the father had been under treatment for syphilis during the year in which the child was born. In the three cases of vaccination from this undoubted syphilitic stock, there have been no symptoms of any infection. One I saw two years after the operation; one I have seen at short intervals ever since; the third—the adult—was in my office but a few days ago.

The result of the long—one might say

interminable—discussion before the French Academie de Médecine, and those which have taken place more recently in England, seems to establish the fact that vaccine lymph without blood cannot infect. For this reason, bloody lymph should never be employed; ivory or quill points should never be used a second time, and the lancet should be carefully cleaned after each operation. Inasmuch as erysipelas, eczema and various eruptions are sometimes "driven out" by vaccination, a record containing the sources from which lymph is obtained, the cases upon which it is used and the results, is a great protection to the physician in affording him a series of cases which can clear him from the suspicions of credulity and ignorance.

In cases where there is a possibility of inherited disease, a delay of seven or eight weeks, until the symptoms would probably appear, may save the doctor from reproaches properly belonging to the parents.

As even the shadow of a doubt should not be ignored in such an important matter, it is better to take the virus from children more than two months old.

Reports of Medical Societies.

ANNUAL CONVENTION OF THE AMERICAN MEDICAL ASSOCIATION.

First Day.

The delegates to the American Medical Association were convened in Horticultural Hall, Philadelphia, on Tuesday morning, May 7th, at 11 o'clock. A large number of medical men were present at the hour of opening, and were cordially greeted by members of the profession residing in Philadelphia and vicinity. The meeting was called to order at the appointed hour by the President, Dr. D. W. Yandell, of Louisville, Ky. Prayer was offered by the Right Rev. Dr. Stevens, Bishop of the Protestant Episcopal Church in Pennsylvania.

An address of welcome, on behalf of the medical profession of Philadelphia, to the visitors, was delivered by Professor R. E. Rogers, Chairman of the Committee of Arrangements.

The President then delivered his annual address. Dr. Yandell commenced by reviewing the early history of the Society, and of those eminent men who were its early spirits. Especially, he referred to Dr. Benjamin Rush, and sketched briefly the life of this great physician, and his connection with the medical history of Philadelphia. A sketch of Dr. Casper Wistar followed, and also of Dr. Chapman, the first President of the Association.

The speaker then entered into an elaborate discussion of the standard of learning and attainment among the profession, contrasting the past with the present time.

After a full allusion to the different schools of medicine, he said that medical science was not to be learned among colleges and schools but among patients in the hospital. Not deep researches, but more practical treatises were what was required. He exemplified the code of Dr. Drake on the diseases of America, published many years ago, a work standard in its time, but whose reputation has departed. At the World's Exhibition in London, it was asserted that the only line in which America had excelled was in "rugged utility," and it was only by rugged utility that the profession would ultimately succeed.

The President considered the advances made at the present moment all along the line of medical science. That the schools of the country, acknowledging the force and truth of his words, were educating their youth more in the practical knowledge of the profession than in the knowledge of the dead languages, the Latin and Greek. That this was producing its best fruits was evident, for we saw that in the farthest of the far West, where the practitioner who had never had an academical education, and possibly with only the elements of an education, lulled the miner's son to quietness by day with bromide of potassium, and to sleep at night with hydrate of chloral. Thus we see that even far from the centre of civilization the same treatment is given to the rough miner's son that is afforded to the princes of the earth.

The speaker then passed to discuss the subject of the education of woman to the medical profession. Although not condemning the idea of female medical education, he said that he could not fully and heartily sympathize with it.

After alluding to the fact that history recorded the eminent attainments of many women in the medical profession, the President said he hoped, however, that no element of discord would be introduced into their midst by the endeavor of women to enter their body. He for one would not vote for them. He concluded with an apostrophe to the humanizing influence which the practice of medicine produced all over the country.

The report of the Committee on Credentials was next presented as far as read.

Dr. H. F. Askew, of Delaware, offered a resolution that all questions of a personal character, including complaints and protests, and all questions of credentials, be referred at once to the Committee on Ethics, and without discussion.

The question being called for, after some remarks by Drs. Mussey, of Ohio, and Hartshorn, of Philadelphia, the motion was put and carried without a dissenting voice. The following gentlemen were appointed a Committee on Ethics:—

Dr. Askew, of Delaware; N. S. Davis, of Illinois; Calvin Geary, of Maine; I. K. Burtette, of Delaware; and S. D. Gross, of Philadelphia.

The Convention then adjourned.

SECOND DAY.

The Association met on the second day at 10 o'clock. In the absence of the President, the Vice-President, Dr. Thomas M. Logan, of California, called the meeting to order.

At this point, owing to the inability of some delegates, far removed from the stage, to hear, on account of the imperfect acoustic arrangements of the hall, an adjournment was made to the First Reformed Presbyterian Church, Broad street, below Spruce, where Dr. Yandell met them as presiding officer.

Prof. R. E. Rogers offered the following resolution:—

Resolved, That Dr. J. Edgar, Chancellor of the University of Virginia, be invited to take a seat in the Convention.

Agreed to after several other names were added to it.

Dr. Bronson, of Massachusetts, offered the following as an amendment to the By-Laws:—

Resolved, That the Committee on Ethics, to consist of seven members, be selected by the Nominating Committee.

The President decided that this change in the By-Laws would necessarily lie over until the next annual meeting. The motion was then put as a simple resolution, but was negatived by a vote of 167 to 187.

In support of the resolution Dr. Bronson said:—I was about to say that, at the organization of this Association, the questions which came before the Committee on Ethics were of very little interest to a large portion of this Convention. The Committee was considered of so little importance that it was not originally a part or parcel of our Constitution or By-laws; but within the last few years every gentleman who is familiar with the Acts of this Association is aware that discordant elements have been introduced here which have consumed time and produced friction in this body, and it has been owing in part to the fact that the presiding officers of this Association have exercised their undoubted right by indicating of whom that committee shall consist. If the President of this Association had any special predilections on this or that question, he would be very apt to appoint a committee in sympathy with him. Hence it is that dissatisfaction has been produced among a large number of the delegates. With the view, therefore, of correcting that evil, it has occurred to me that if each State and Territory had a voice in the formation of that committee, the difficulty would be removed; that it would prove a balm and a poultice to this Society, rather than an element of discord. This was the object I had in view when I introduced this resolution, not that I had anything to say against the action of any of our presidents, for they have all acted as I would, no doubt, have acted myself.

In connection with remarks on the action taken by the Association towards the Massachusetts Medical Society in 1870–71, Dr. N. S. Davis, of Chicago, said:—I hold in my hand a preamble and resolution. In passing it, it seems to me that it would be calculated to do good in at least one section of our country, and I can see nothing in it that any man could object to.

The preamble set forth that it had been represented that the Massachusetts Medical Society considered that its delegation to the annual meeting of the American Medical Association, in Washington, in 1870, was unjustly excluded by the Committee of Arrangements, and that the action of the Committee on Ethics, at the same meeting, in refusing to allow the right of the said Committee of Arrangements to detain the Massachusetts delegation, was unauthorized by a majority of the members of that Committee. It was moved that the Association acknowledge the great and effective efforts of the Massachusetts Medical Society to elevate the profession, and that the Association encourage it in its exertions to rid itself of all pretenders. I would move that the resolution be adopted, simply because I deem it worthy of our action. I am sure that, as the Massachusetts Medical Society is carrying the matter now to the civil courts, if we can give them a word of encouragement it will be of service.

Dr. Baldwin moved to refer the matter to the Committee on Ethics.

The reports of the Committee on Publication and of the Treasurer were then read and accepted.

Dr. J. S. Wetherby, of Alabama, presented the report of the Committee on Medical Education, which, after going briefly over the ground of the state of education in this country, and making a comparison with the European plans, threw out a number of suggestions, that no more charters should be granted to medical colleges which do not adopt the plan of medical education indorsed by the Association, and that applications be made to the legislature for the revocation of the charters of such colleges as do not adopt such plan, and that no delegate be admitted into the conventions from an institution which has failed to meet similar requirements. The report alluded to the rivalry between the various medical colleges, which induced them to lower the charges for education, and tended to make them throw abroad upon the world men who were totally unfit for the physician's duties.

This was appropriately referred.

Dr. Francis Gurney Smith, from the Committee on Prize Essay, in the absence of Dr. Stillé, chairman, presented a report announcing Dr. Samuel R. Percy, of New York, as the successful essayist, for an essay upon "The Physiological Value of Phosphorus as an Organismal Element."

Dr. T. Parvin, of Indiana, read the report of the Committee on Medical Literature, which asserted that while the medical profession of the country had a journalism which was honorable, worthy and able, yet that it was exposed to the danger of becoming local and provincial; was subjected to the influences of certain colleges; and that it sometimes, too, descended to the lauding of quackeries. The report recommended that manuscript books on medical topics, designed for publication, should be referred to the Committee on Medical Literature for critical examination; and that then, if the report was favorable, the work should be produced "under the auspices of the American Medical Association." Referred.

The report of the Committee on American Medical Necrology was presented and referred without being read.

Dr. William R. Findley, of Pennsylvania, offered a resolution referring to the Committee on Ethics the resolution adopted at the New Orleans meeting of the Association, which set forth that physicians who attended families on contract or by the year, or bid for practice at less rates than regular graduates, were to be classed among irregular practitioners. Agreed to.

Dr. George Sutton, of Indiana, read a paper urging the necessity of the establishment of a National Medical Library.

In connection with this subject, Dr. Woodward, of Washington, D. C., said:—I ask the indulgence of the Association to make a very brief statement in regard to the very matter the gentleman has just alluded to. I wish to state that the National Medical Library which he considers so desirable is already in existence; that the Library of the Surgeon-General's Office in Washington has been furnished with funds during the last four or five years by Congress, and has been accumulating books until it now numbers fifteen or eighteen thousand volumes, and that there is every probability that a large appropriation will be granted during the present session for its continuance.

After some discussion of a question which arose concerning the powers of the Publication Committee, and which was settled by a vote of the Association to leave those powers untouched, the meeting adjourned.

The afternoon was again occupied in the reading of papers in the various section rooms.

In the evening the Association met in the chemical lecture room of the Medical Department of the University of Pennsylvania, to listen to a lecture by Prof. Noyes, of New York, on "The Relation of Diseases of the Inner Structure of the Eye to other Affections of the Body."

At 8 o'clock, Prof. Robert E. Rogers delivered a brief lecture, with demonstrations of electrical phenomena, in the same hall.

The delegates, with the ladies who accompanied them, then proceeded to the residences of Dr. William H. Pancoast and Dr. Hugh L. Hodge, where they were hospitably entertained.

THIRD DAY.

The Association met at the Presbyterian Church as on the previous day.

The Secretary read the following resolution, which was adopted in the College of Physicians, in Philadelphia, May 1, 1872:—

Whereas cases of accidental poisoning and of the internal administration of medicines intended only for external use are so frequent; and—

Whereas every possible safeguard should be employed to prevent such accidents; therefore—

Resolved, That it is recommended to all druggists to place all external remedies in bottles not only colored, so as to appeal to the eye, but also rough upon one side, so that by the sense of touch no mistakes shall be possible, even in the dark; and that all bottles containing poisons should not only be labelled "poison," but also with another label indicating the most efficient and convenient antidote.

Dr. Sayre, of New York, moved to adopt these resolutions. Agreed to.

Dr. Alexander W. Stein, of New York city, presented the following resolution:—

Whereas, it has long been recognized that diseases of a dangerous and fatal nature are transmissible from animals to man, and that certain zymotic affections, which are common to both man and animals, do very frequently manifest themselves, first in the latter and subsequently in man, thus warning us that to be indifferent to the condition of the inferior animals is to introduce and create centres of disease among ourselves; therefore—

Resolved, That a committee be appointed to ascertain what measures can be instituted to prevent the extension of such diseases to man, and what sanitary measures can be effected to arrest the progress of such diseases in animals, the committee to report next year. This was adopted.

Dr. Frederic Horner, of Virginia, proposed the following:—

Whereas, the abuse of ardent spirits in our country has proved injurious to the health of the community—

Resolved, That the members of this Association recommend to discourage the use of alcoholic stimuli in the community.

Agreed to.

Dr. Francis Gurney Smith, from the Committee on Nomenclature, read a majority report recommending that the Association adopt a new system of nomenclature, and moved its adoption.

Dr. Woodward, of the United States Army, read a minority report and an accompanying resolution, setting forth that, as the matter was one too serious for hasty adoption, the majority report be printed and lay over till the next annual meeting.

Some debate ensued, after which Dr. Woodward's resolution was adopted.

Dr. Baldwin read a partial report from the Committee on Nominations, as follows:—

President.—Dr. Thomas D. Logan, Cal.

First Vice-President.—Dr. Catlin, Conn.

Second Vice-President.—Dr. McPheeters, Mo.

Third Vice-President.—Dr. Pollock, Pa.

Fourth Vice-President.—Dr. Briggs, Tennessee.

Treasurer.—Dr. Casper Wistar, Pa.

Librarian.—Dr. William Lee, D. C.

Committee on Library.—Dr. J. M. Toner, D. C.

Assistant Secretary.—Dr. M. A. Fallon, Mo.

The report was accepted.

The next meeting of the Association will be held at St. Louis, Mo.

Dr. Logan, of California, read a report on Public Hygiene, recommending that institutions in this branch of medicine be organized throughout the land; he also advised the more perfect education on this subject in our schools.

The Committee asked to be continued for the purpose of still further studying the subject of State medicine, and offered a resolution that there be appointed a special section on the above subject and on public hygiene.

Dr. Tucker, of California, offered a substitute, recommending the formation of a National Medical Bureau, instituting a national system of quarantine, and recommended the publication of information referring to medical practice.

The substitute was voted down and the resolution of the committee agreed to.

The Committee on Nominations presented a further report as follows:—

Committee on Arrangements.—Dr. J. B. Johnston, Dr. J. T. Hodges, Dr. J. S. Moore, Dr. Robinson, Dr. Kennard, Dr. Teste, Dr. Brokaw, Dr. J. M. Scott, all of St. Louis.

Committee on Publication.—Dr. Atkinson, Chairman, Pa.; Dr. D. Murray, Chester, Pa.; Dr. Wm. Lee, District of Columbia; Dr. Casper Wistar, Pa.; Dr. H. F. Askew, Delaware; Dr. A. Meigs, Pa.

Committee on Prize Essays.—Dr. Moore, Chairman, Missouri; Dr. Gregory, Missouri; Dr. Davis, Illinois; Dr. Parvin, Indiana; Dr. Mendenhall, Ohio.

Committee on Medical Education.—Dr. Carson, Chairman, Ohio; Dr. Tojan, Ga.; Dr. Howard, Md.; Dr. Steel, Cal.; Dr. Vanderpool, N. Y.; Dr. Johnson, District of Columbia; Dr. Stout, Ga.; Dr. Welsh, Texas; Dr. Scott, Ark.; Dr. Bailey, N. Y.; Dr. Jones, Ala.; Dr. McRuor, Me.; Dr. Talley, S. C.; Dr. Blaine, N. J.; Dr. Shattuck, Mo.; Dr. Jacques, Va.

Committee on Medical Literature.—Dr. Flint, Chairman, N. Y.; Dr. Yandell, Sr., Ky.; Dr. Henderson, Ala.; Dr. Thrall, Ga.; Dr. Leary, Me.

Committee on Medical Necrology.—Dr. Jackson, Chairman, Ky.; Dr. Parsons, R. I.; Dr. Hildreth, W. Va.; Dr. Johnson, D. C.; Dr. Simmons, Cal.; Dr. Warriner, Oregon; Dr. Stevens, Ohio; Dr. Agnew, Pa., and others.

OFFICERS OF SECTIONS.

Chemistry and Materia Medica.—Dr. R. E. Rogers, Chairman, Philadelphia; Dr. Ephraim Cutter, Secretary, Boston.

Practice of Medicine and Obstetrics.—Dr. D. A. O'Donnell, Chairman, Baltimore; Dr. Benjamin F. Dawson, Secretary, New York.

Surgery and Anatomy.—Dr. Warner, Chairman, Baltimore; Dr. W. Peck, Secretary, Iowa.

Climatology and Epidemics.—Dr. George Sutton, Chairman, Indiana; Dr. Elisha Harris, Secretary, New York.

Medical Jurisprudence, Hygiene and Physiology.—Dr. R. C. Busey, Chairman, Washington; Dr. H. B. Arnold, Secretary, Baltimore.

Psychology.—Dr. Isaac Ray, Chairman, Philadelphia; Dr. John Curwin, Secretary, Harrisburg.

The report was accepted.

Dr. Askew, from the Committee on Ethics, presented a report, which was read by Dr. Davis.

In relation to the preamble and resolutions offered by Dr. Davis, touching the Massachusetts Medical Society, the Committee recommended them for unanimous adoption by the Association. They are as follows:—

Whereas it has been represented that the Massachusetts Medical Society considers that the delegates to the annual meeting of the American Medical Association in Washington, May, 1870, were unjustly excluded by the Committee of Arrangements; and—

Whereas the action of the Committee on Ethics, at the same meeting, in refusing the right of said Committee of Arrangements to exclude the Massachusetts delegation, is not yet fully understood by that Society; therefore—

Resolved, That the Association acknowledge the great and effective efforts of the Massachusetts Medical Society to elevate the profession, and to suppress quackery of all sorts, and especially assure that Society of encouragement and support in its present exertions to rid itself of all pretenders.

This was agreed to by the Association.

The Association then adjourned.

The members subsequently repaired to the University of Pennsylvania to partake of an entertainment tendered them by the professors and graduates of that institution.

At 7, P.M., they attended the Jefferson Medical College, for the purpose of listening to a lecture on "Sound," accompanied by several experimental illustrations by Dr. J. Solis Cohen.

At 8 o'clock, they repaired in a body to the residence of Thomas A. Scott, Esq., where they were tendered a reception.

FOURTH DAY.

The Association was called to order at 10 o'clock.

Dr. Pineo, of Massachusetts, presented a resolution, placing the United States Marine Hospital Service in the same relative position in this Association as the Medical Department of the Army and Navy, and making the necessary alterations in the Constitution. Laid over for one year.

The President appointed the following Committee in reference to the publication of a National Medical Journal: Drs. Pollock, Westmoreland, Talley, Walker, Jackson, Weatherly and Maguire.

Resolutions were passed on the death of certain members of the Association; considerable discussion ensued on matters of unimportant business which were brought up.

Dr. Reese, of Brooklyn, offered the following:—

Resolved, That while we admit the right of woman to acquire medical education and to practise medicine and surgery in all the departments, we deem the public association of the sexes in our medical schools and at the clinics of our hospitals as impracticable, unnecessary, and derogatory to the instincts of true modesty in either sex.

The resolution was immediately laid upon the table, when Dr. Busey suggested that laying this resolution on the table was an error upon the part of the Association.

On motion of Dr. Rogers, the resolution was taken from the table, and he then said that in voting to lay the resolution upon the table, the Association had virtually accepted it.

Dr. Hartshorne then moved to indefinitely postpone the consideration of the subject, which was carried.

Dr. Yandell announced that all the business of the session had been disposed of.

After thanking the members, in a short address, for their uniform kindness and courtesy toward him, the Association adjourned, to meet in St. Louis next May.

In the afternoon, the members of the Association visited Fairmount Park, and there concluded the annual convention by a banquet provided by the physicians of Philadelphia.

CAMBRIDGE SOCIETY FOR MEDICAL IMPROVEMENT.

A. P. CLARKE, M.D., SECRETARY.

The Society met March 4th, 1872, Dr. A. L. Norris in the chair.

Dr. S. W. Driver read a communication on the subject of puerperal convulsions, in which he related four cases. The first occurred in very hot weather, and from the heat and other causes it speedily proved fatal. The next case occurred in a primipara, before the os had dilated to any considerable extent. As soon as practicable, the forceps were employed and delivery completed. The urine in this case contained a large proportion of albumen, but this disappeared as early as the sixth day after delivery. This patient recovered perfectly. The next case occurred in a multipara, and resembled very much the preceding. The convulsions occurred early, and the forceps were employed. The urine was nearly free from urine by the fourth day. This patient likewise recovered. The patient in the next case had complained more or less for a month; convulsions occurred before the labor had made any considerable progress. The forceps were employed as soon as possible, but there was considerable difficulty experienced in their application, owing to some malformation of the head of the fœtus. The completion of the delivery did not at first check the convulsions, and the sixth one occurred about half an hour after the birth of the child. The patient had for awhile a small and rapid pulse, and her system was greatly depressed. The urine contained a large amount of albumen, together with a great number of fatty casts. There was marked coma, and the excito-motor system of the medulla was suspended. The pulse for awhile became more and more deficient. The urine was scanty, and for twelve hours two ounces only of that fluid were secreted. This had to be drawn by the aid of the catheter. Œdema was very extensive, especially about the eyelids. Before the patient became conscious, the movements of the right arm were found to have become suspended. Chloroform in this, as in all of the foregoing cases, was administered, but it did not fully control the convulsions; stimulants were also given. The severity of the symptoms and the depression of system steadily continued, and the prognosis of the case became decidedly unfavorable. At length, however, the symptoms became easier, and by the ninth day the patient had nearly recovered. Chloroform was preferred to ether as being much more agreeable, effectual and speedy in allaying the spasmodic action of the disease. Bromide of potassium was given in the intervals, on account of its supposed happy effect in preventing the recurrence of the spasms. Acetate of potass. was freely resorted to for its diuretic effects for lessening the œdema. To show by way of illustration the beneficial effects of the bromide in dropsical cases, Dr. Driver mentioned a case of ascites wherein the patient suffered from repeated attacks of pyrexia and other symptoms, over which the bromide always appeared to exert a marked influence in diminishing their severity.

Dr. R. M. Otis read a written communication on the prolonged use of sulphate of morphia employed subcutaneously, which was published in this Journal for April 11, 1872.

Dr. H. O. Marcy exhibited a morbid specimen from a patient who had been a great sufferer from the effects of rheumatic or obstructive disease of the heart. For the past ten days she had suffered from extensive bronchial trouble, and about thirty-six hours before death partial pneumonia supervened. She was about five months pregnant. The uterus *in situ* containing the fœtus, placenta and membranes attached, were exhibited to the members of the Society. The placenta was noticed to be closely adherent to the uterine surface, and as it was gradually moved, the interlacing of the tissues were finely displayed. The uterine sinuses were also well marked. The liver and kidneys showed characteristic changes of interstitial degeneration usually met with in such diseases. Microscopic sections of the same were shown to the gentlemen. Dr. Marcy also exhibited a morbid specimen from a child, aged 5 years, who died of chronic pneumonia, or what has sometimes been called capillary bronchitis. The lower portion of one lung was found diseased, but the upper portion was quite healthy. The affected portion had somewhat the appearance of tuberculous lung, and the disease might have been mistaken for some of the forms of tuberculosis. Microscopic sections showed the obstructions or constrictions in the minute ramifications of the bronchial tubes.

Foreign Correspondence.

LOSTORFER'S CORPUSCLES.

VIENNA, April 20, 1872.

MESSRS. EDITORS,—The meeting of the "Gesellschaft der Aerzte" was occupied last evening by a long and elaborate discourse upon Lostorfer's corpuscles from Professor Stricker. He first described carefully the various bodies which have, up to the present time, been recognized as the constant ingredients of fresh specimens of human blood. These consist, beside the well-known red and white corpuscles, of colorless irregular bodies, probably fragments of the white corpuscles and of certain hyaline bodies, varying in size and shape, of whose nature and consistency nothing is known. Small globules of fat may occasionally be detected. After this description, the Professor went on to give in detail the procedure which he followed in preparing the specimens of blood for examination, and the many precautions which he had found it necessary to take in order to insure the development of the corpuscles in question. These details I will give below.

With properly prepared specimens of syphilitic blood, the Professor had searched from hour to hour and from day to day, noting every minute change that took place in the field of the microscope. Drawings were also in many instances made of spots that promised to be fertile. After twenty-four hours it was noticed that the fragments, presumed to be of white corpuscles, after growing paler and paler, finally disappeared. Rarely on the same day, more frequently on the second, third, or fourth day, minute shining points would become visible in the hitherto perfectly clear islands of plasma. These grew in hours or days (the time differing greatly in different patients) to be recognized as distinct round bodies. The larger ones may be described as follows: rounded bodies, probably spherical, occasionally oblong, often presenting upon their periphery the appearance of sprouts, as described by Dr. Lostorfer; they are colorless, of rather a subdued brightness, and on a change of the fine adjustment of the microscope become dark, not black; they refract the light but very slightly, if at all, so that their outline is never distinctly marked like that of a fat globule; they may best be compared to the nuclei of some of the cerebral ganglia; no change in their shape has ever been noted. "What could the nature of these strange, hitherto unknown bodies be?" continued Prof. Stricker. "Their growth would suggest their being of organic nature, as would also an occasional flattening of one of their sides into a disk, and, later, a return to their pristine form. Yet mineral substances, too, might increase in size through fresh deposits upon their sides, and, despite the absence in these bodies of all optical and chemical peculiarities of crystals, this possibility could not be overlooked. One circumstance favored this supposition; I noticed that occasionally a minute corpuscle would approach a larger, become attached to its side, and present the above-mentioned appearance of a sprout; little by little the smaller would sink beneath the surface of the larger corpuscle, a slight prominence would alone remain, and at last this too disappear; the absorption would be complete, and the size of the resulting corpuscle perceptibly increased. This performance I witnessed many times."

The action of the various acids upon these bodies was the same; on the first few days of their development this was to cause them to shrivel up and cease to grow. Later, when they were fully grown, they seemed to be unaffected by the acids. These peculiarities would suggest that, when young and tender, they are accessible to external influences, but that afterwards the outer layers of their substance become hardened and present a barrier to the action of the fluids about them. That they are not fat is proved by the fact of their not being colored darkly by osmic acid.

Many such preparations of syphilitic blood were thus examined, always with success, except in one batch, in which the failure to find the corpuscles was afterwards proved to be owing to the unusually low temperature of the laboratory. Acting on the hint thus obtained, the professor had made some fresh preparations, and studied them while they were kept at a uniformly high temperature, by means of a stand of his own invention (18°–20° Celsius). To prevent the drying of the blood, which at this temperature must have speedily ensued if not guarded against, he arranged pieces of blotting paper, doubled several times, all about the slide, some flat upon the stand and others leaning up against the barrel of the microscope; these were kept constantly moist, care being taken that the paper should not touch the covering-glass, nor the water in any other way have access to the blood. The first experiment was with the blood of a syphilitic, in which the corpuscles had always appeared rapidly and in great numbers. Here, within fifteen minutes, minute, shining points could be seen in the perfectly clear serum, which, within an hour or two, had increased to considerable dimensions and presented the characteristics of Lostorfer's corpuscles. Again and again was the same process repeated with the same and with other blood, and always with a like result, the only difference being in the time required to develope the bodies. At length, the professor raised the temperature to 38°–40° Celsius, and placed the blood under the microscope thirteen minutes after it was taken from the finger of the patient. The island of plasma selected for observation was perfectly clear, and bounded on three sides by masses of red blood corpuscles and on the fourth by an air-bubble. In a very few minutes, he was amazed to see the plasma become thick and turbid; soon myriads of minute shining bodies developed, resembling the milky way in the heavens. Under his very eyes, the bodies grew till many could be recognized as those described by Dr. Lostorfer. Stranger still, many of these were in the form of dumb-bells; two corpuscles were united by a thread, about the centre of which they were seen to sway; they also approached and receded from each other continually; often one would be almost absorbed into its mate, yet never failed to issue again and repeat the same freaks. None of the corpuscles, in this preparation, or in any others developed by great heat, attained to any considerable size. "The corpuscles could no longer be mineral, they must be organic; the connecting band must be elastic, for no other consistency could explain the advance and retreat of the bodies from one another."

The professor called attention to the peculiarity of their behavior in different temperatures—in a moderate they are few, yet reach a large size, and in a high temperature they are innumerable, but remain small. This corresponds to the growth and proliferation of pus cells, which in a chronic inflammation grow large without subdividing and multiplying much; but in an acute inflammation they are seen to multiply very rapidly, and no cell of large size is ever seen.

Finally, Prof. Stricker begged to be excused, on the score of fatigue, for postponing the conclusion of his discourse to the next meeting, adding that, without replying to the question of the specific nature of the corpuscles, it was certain that syphilitic blood was peculiarly favorable to their development.

I have omitted from the above report of Prof. Stricker's paper the mode of preparing and keeping the slides, that I may give it in my own authority. My reasons for so doing are, first, that, after a month's study of human blood with Prof. Wedl, I have since been repeatedly instructed in the preparation and care of the specimens by Prof. Stricker and Dr. Lostorfer, and therefore feel more confident in speaking from my own knowledge, than from my recollection of his words last evening; and, secondly, because I think it important to introduce a number of details, which, to a man of Prof. Stricker's experience would seem superfluous, yet to a less practised microscopist would be of value, especially as the development of the corpuscles appears to depend upon these, seemingly trivial, details. A slide is to be heated, and a piece of wax lightly drawn twice across its surface from side to side, far enough apart not to interfere with the drop of blood, yet near enough to support the covering-glass at either end, it being understood that a thin layer of wax is thus deposited upon the slide. The object of these ridges is to prevent the covering-glass being pressed down upon the blood. Across these waxen lines are then laid, parrallel and near to each other, two filaments of silk from the cocoon, to serve as guides to the different parts of the field, inasmuch as the silk, being twisted and irregular, presents many recognizable points to the memory. A finger of the patient is then to be washed, pricked, and a small amount of blood received upon the covering-glass, without the latter coming in contact with the skin, by which fat globules and other impurities might be taken up. The covering-glass with the blood is then lightly laid upon the already prepared object-glass. No more blood should be taken than would spread, at the proper thickness, to the size of an old silver three- or five-cent piece, because the edges of the blood present the field for observation, and if they correspond or approximate to the edges of the covering-glass, the water from the lens might be easily introduced into the specimen, and this thereby ruined. If too thin a layer of blood is prepared, the red corpuscles will lie upon their broad sides, and be disseminated over the whole field, an arrangement very unfavorable to the development of the corpuscles. On the other hand, too thick a layer is equally baneful, the desirable condition being where a net-work is formed by piles and rolls of red corpuscles with perfectly clear interspaces of plasma. A little experience will enable one to judge of this with the naked eye, for when of the right thickness the specimen looks yellowish and finely granular, not uniformly reddish, nor very pale. To obtain this condition, one end of the covering-glass must often be pushed off its waxen support. When in readiness, the specimen may be exposed for fifteen or twenty minutes to the air to allow the blood to dry a little upon the edges, and should then be placed in a *slightly* moist chamber; too much moisture will penetrate into the blood, and arrest the development of the corpuscles; a cup of water under a globe is sufficient. The most favorable places for finding the corpuscles are near the edges of blood, where an island of plasma is bounded on three sides by rolls of red-blood corpuscles, and on the fourth by an air-bubble. In conclusion, I would warn all searchers against being deceived by the nuclei of the white corpuscles, which, after a few days, escape from the corpuscles, and are often seen scattered over the field in considerable numbers. They are perfectly colorless, quite marked in their outline, and want the brilliancy of Lostorfer's bodies. They are also apt to be in clusters, often adhering to fragments of the white corpuscles; they are, of course, to be found equally in both healthy and diseased blood, when in a stage of decomposition. Another kind of corpuscle is also occasionally seen of a peculiarly bluish shimmer; this, too, must be set aside as normal.

If my testimony is of any value, after this elaborate discourse of Prof. Stricker, I can honestly state that in the preparations made under my eyes by Dr. Lostorfer, I have seen the corpuscles designated, and recognize them as different from any that I have previously seen in Prof. Wedl's laboratory. Very truly yours,

James R. Chadwick, M.D.

Vienna, April 27, 1872.

Messrs. Editors,—Prof. Stricker again discoursed upon this subject at the meeting of the "Gesellschaft" last evening. After accepting the task of deciding upon the question as to the specific nature of the corpuscles, he related the series of experiments which had led to the conclusions he would announce. Preparations had been made from 13 syphilitics, in 9 of which the corpuscles were found in abundance; in 2 there was some doubt; in the remaining 2 there were surely none. In 12 non-syphilitics next examined, no corpuscles were found. Other diseases were then tested:—in 10 cases of variola 9 contained no corpuscles; one showed one questionable body. In one case of pneumonia and two of heart lesions none were found; upwards of 30 different diseases were searched unsuccessfully. Finally, 10 cases of lupus were subjected to examination, and in 2 unmistakable corpuscles were discovered. Attention was called to the great uncertainty of the negative testimony in all cases, owing to the high power of the lens used, and the long search necessitated by the minute size of the microscopic field compared with that of the preparation.

In reflecting upon these two cases of lupus in connection with the case of syphilis, in which the development of corpuscles had been extraordinarily great and speedy, and where the patient was greatly reduced, the Professor had conceived the idea that possibly great debility might be the condition requisite for their growth. In consequence, a series of preparations from tuberculous and carcinomatous patients were searched, and *Lostorfer's corpuscles found in great quantity.* In a case of heart disease, in one of Bright's disease, and also in one of anæmia the same bodies were detected.

Here, then, was a solution of the mystery; the development of the corpuscles does not depend upon the presence of syphilitic virus, but only upon a condition of the blood, resulting from serious constitutional affections. They can no longer be offered as pathognomonic indications of syphilis (it is but just to Dr. Lostorfer to remember that he never has asserted that the specific nature of his corpuscles had been *proved* beyond all doubt); yet I think that their practical value may still be established, with certain qualifications. May not their presence in the blood have some weight in guiding us to a diagnosis in questionable cases of exanthema, periostitis and the like; i. e. between purely local lesions and similar manifestations of a constitutional malady? It is an important point, that in all stages of secondary syphilitic lesions the bodies are almost invariably present in the blood, though the general health of the patient may not be visibly affected.

Prof. Stricker proceeded to discuss the sources from which these newly discovered bodies might emanate, without, however, throwing any light upon the subject. They may come from without or from within; in the first case a peculiar attraction to the spores must be supposed on the part of the blood in constitutional diseases, yet, considering the corpuscles to be organisms, we have only to observe the cluster of flies hovering about certain appetizing objects in a kitchen or elsewere, to be convinced that nature would not be outraged by such a supposition. On the other hand, if they originate in the plasma of the blood, we must either believe that germs are always circulating in the blood, or accept the theory of spontaneous generation. "Though I am no believer in this last," added the Professor, "yet the fact must not be lost sight of, that, at some period of the earth's existence, there must have been a spontaneous generation." In reference to syphilis, for instance, he thought that there must have been some individual in the remote ages of antiquity in whom the virus originated. If, accepting the Bible history, we could trace it back to Adam, in him it must have been created; or, again, in accordance with the Darwinian theory, suppose we could follow the virus back through generations of apes, ichthyosauri, jelly-fish, &c., still that inconceivable spontaneous generation confronts us.

"If, then, these corpuscles could once originate spontaneously, why not now?"

And there the Professor leaves us in a true German way, to grope about in the murky mists of philosophical speculation, into which he has conducted us.

"What, then," it may be asked, "are Lostorfer's corpuscles?" To which we would briefly reply: hitherto unknown microscopic bodies which have been seen to grow and move, therefore organic, occurring in preparations of the blood of individuals, reduced by constitutional diseases; but of the source, nature and purpose of the corpuscles we are still in utter ignorance.

One significant fact, which must occur to everyone, and which we would recommend Dr. Salisbury to consider, is, that, despite the hundreds of experienced microscopists, whose instruments have for months been directed at syphilitic blood, not a single observer has detected a trace of the "Crypta syphilitica" (Salisbury), which our fellow-countryman finds in every case he examines. I am very truly yours.

James R. Chadwick, M.D.

P. S.—Since writing the above, the Journal of April 11th has reached me, in which I find a statement that the committee appointed from the Boston Society for Medical Observation to investigate Lostorfer's corpuscles, have failed to detect anything in the blood of syphilitics which was not equally to be found in healthy blood. From my last letter it will be evident that no other result could have been expected, because of their ignorance of the method of preparing the slides. The same ignorance prevented Prof. Wedl, Dr. Neumann, and others, from accepting the new discovery, but they now no longer hesitate to recognize the corpuscles as fully proved; this I have from their own lips. I, myself, have recently seen the corpuscles in properly-prepared specimens, after having searched a month in vain.

Selected Papers.

TORSION OF ARTERIES.

Translated from the "Archives Générales de Médecine" for Nov., 1871, by H. Tuck, M.D., Boston.

At a recent meeting of the "Academie de Médecine" in Paris, Dr. Tillaux read a paper on this subject, from which the following extract is taken :—

He stated that the torsion of arteries was first advised by Amussat, but that the practice seemed to have fallen into entire neglect.

The ligature is certainly not without its disadvantages; its presence favors suppuration and prevents union by first intention. It is not rare that a nerve filament gets seized with the artery, causing great pain, giving rise, according to some authorities, to traumatic tetanus; sometimes, also, a few fibres of cellular tissue or of muscle are included in the loop of the ligature, and, becoming sphacelous, putrefy in the wound. These are the chief objections to the ligature. The torsion of arteries does away with all these. But does it assure hæmostasis to the same degree as the ligature? I assert most emphatically that it does. The torsion of an artery, thoroughly performed, closes absolutely and completely the mouth of the vessel. Numerous experiments on the dead subject convinced me so strongly of this fact that I have not hesitated to employ torsion upon the living subject with entire confidence. I amputated the left arm, above the elbow, of a vigorous omnibus driver. The dressing was not even tinged with blood, contrary to the ill-disguised incredulity of my assistants. I have since done an amputation of the forearm near the elbow, and a tarso-metatarsal amputation, with the same result.

Torsion can be done perfectly well with the ordinary ligature forceps, though I have had some made for this purpose—varying in size for large, medium and small arteries.

Torsion is thus performed:—the artery, being isolated, should be seized with the forceps about one-eighth of an inch from its open end, and holding the forceps in a direction parallel with the artery with the left hand, with the right twist them round slowly. The coats of the artery at first resist, but soon yield, and after a number of twists (I have made as many as thirteen) the seized extremity is twisted off and remains in the grasp of the forceps.

THE DIAGNOSIS OF ANEURISM OF THE AORTA BY THE AID OF THE LARYNGOSCOPE.

By George Johnson, M.D., F.R.C.P., Physician to King's College Hospital, &c.

It is well known that, in cases of aneurism of the arch of the aorta, symptoms referable to the air-passages not unfrequently arise. The diagnosis of these cases is often much facilitated by the use of the laryngoscope. Such a case I saw lately.

A gentleman, Mr. H., aged 33, had noticed occasionally for a year past that, after running hard, his breathing became short, and attended with a noise in the throat. About six weeks before I saw him, while running after a wounded hare, his breathing became so difficult that he could run no longer, and he was nearly suffocated. At the time of his visit to me, on the 30th of October, the chief symptoms were cough, stridulous breathing, and occasional difficulty of swallowing. The voice was clear and loud; and I remarked to Dr. Richards, before looking into the larynx, that, if the obstruction which caused the stridor were in the larynx, there would almost of necessity be more or less hoarseness and feebleness of voice. A laryngoscopic examination showed the larynx healthy, except slight congestion and redness of the mucous membrane; and while he drew a deep inspiration through a widely open glottis, as seen in the mirror, we heard loud stridor, evidently originating below the larynx. Then the question arose, is there an aneuism pressing on the trachea? No unusual pulsation could be felt anywhere. No abnormal sound was heard over the front of the chest; but, on auscultation over the upper dorsal spinous processes, the tracheal stridor was heard there almost as plainly as when the stethoscope was placed over the front of the trachea itself; and the voice in that situation had a loud bronchophonic character. In addition to these physical signs, the respiratory murmur was decidedly more feeble over the right than over the left lung. We came to the conclusion that an aneurism of the transverse aorta, pressing on the trachea, and narrowing the tube, was the cause of the stridor, the occasional dyspnœa, and dysphagia.

I did not see the patient again; but I learn from Dr. Richards that he became steadily worse for some time, and rapidly so a few days before his death, which occurred exactly three weeks after his visit to me. The difficulty of breathing progressively increased, until it became a constant struggle; there was occasional dysphagia; and he died from apnœa on the 20th of November. Dr. Richards has kindly sent me notes of the examination made twenty-four hours after death, and a photograph of the aneurism, which I have had copied upon wood.

At the back of the transverse aorta there was a shallow pouch an inch and a half in diameter; at the upper part of this pouch an oval opening, with smooth, rounded margins, and scarcely large enough to admit the tip of the little finger, communicated with an aneurism about the size of a walnut; this tumor pressed backwards on the trachea just above its bifurcation; the cartilages were eroded; and the posterior wall of the aneurism was mainly composed of mucous membrane, which, over the most prominent part of the tumor, had an ulcerated opening a quarter of an inch in diameter, so that a clot of fibrine alone intervened between the blood in the aneurism and the air in the trachea. The canal of the trachea was nearly filled by the aneurismal tumor, which projected more over the right than over the left bronchus, and so explains the comparative feebleness of the respiratory murmur over the right lung. The recurrent nerves were found to have no connection with the tumor.

The case whose history I have here briefly given, is a type of a class of cases. A similar case is at present under my care in the hospital. The chief features of these cases are, that an aneurism at the back of the transverse aorta presses on the trachea, narrows the canal, and so causes frequent loud cough, dyspnœa and stridor; the stridor is tracheal, not laryngeal; while the voice remains clear and loud, and the laryngoscope shows the larynx quite normal, or the mucous membrane only slightly congested. The tracheal stridor and the sound of the voice are distinctly heard over the upper dorsal spinous processes, in consequence of the trachea near its bifurcation being pressed backwards against the bodies of the vertebræ, so that the sound is conducted through the bones. The symptoms in these cases may steadily or rapidly grow worse, but are not liable to sudden paroxysmal increase, except after unusual exertion, by which the aneurism becomes distended, and so the pressure on the trachea is temporarily increased.

There is another distinct class of cases in which laryngeal symptoms result from pressure of an aneurism on the pneumogastric nerve or its recurrent branch, the muscles of the larynx being either paralyzed or thrown into a state of spasm. I have published a case of this kind in the fifteenth volume of the *Pathological Transactions*, p. 72. In that case, the symptoms bore a striking resemblance to those of laryngitis. It is not only of scientific interest, but also practically important, to distinguish the two classes of cases; and the laryngoscope affords much assistance in the diagnosis. When pressure on the nerves causes spasm or palsy of the laryngeal muscles, the voice is usually feeble and husky. With laryngeal spasm, there will be stridulous breathing, which may come and go quite suddenly, often without obvious external exciting cause, like paroxysms of infantile laryngismus stridulus. In these cases, the stridor is laryngeal, not tracheal. Inspection with the mirror during the paroxysm of spasm shows closure or great narrowing of the glottis, without structural change within the larynx, as in cases of hysterical laryngismus. When the spasm relaxes, the larynx appears quite normal. When pressure on one recurrent nerve has caused unilateral palsy of the laryngeal muscles, one arytenoid cartilage, with its vocal cord, may be seen to remain motionless when vocalization is attempted; and the voice is feeble and husky. In these cases, the tubular breathing and bronchophony resulting from pressure of the trachea against the vertebræ are absent. Now the chief practical advantage of a correct diagnosis between stridor and dyspnœa the result of direct pressure on the trachea, and stridor from laryngeal spasm, or palsy, the result of pressure of an aneurism on a nerve, is this, that, in the latter class of cases, temporary relief may be afforded, and life prolonged, by tracheotomy; whereas in the former class tracheotomy is obviously quite useless, since the obstruction is below the point where the trachea can be opened. When laryngeal symptoms result from spasm, repeated doses of chloral have a decided influence in lessening the spasmodic tendency. Chloroform inhalation, also, relaxes laryngeal spasm, and therefore it may sometimes be employed as one means of distinguishing spasm of the larynx from a more permanent obstruction in the larynx or trachea.—*Brit. Med. Jour.*

Medical and Surgical Journal.

Boston: Thursday, May 23, 1872.

PLACENTA PRÆVIA.

In the *Richmond and Louisville Medical Journal* for April is contained the report, by Dr. W. O. Baldwin, of a case of placenta prævia. The treatment of the case appears to have been ingenious and original. The patient was at the end of the seventh month of her fourth pregnancy. Various remedies—as ice, the tampon and ergot—failed to arrest the profuse hæmorrhage from a placenta occupying the cervical zone of the uterus, and the patient was greatly reduced. Forcible delivery was now determined on as the only method consistent with the salvation of the woman; and even this promised but a doubtful result in view of the risk from any farther flowing. The os uteri was dilated by means of Barnes's hydrostatic dilators. The hand of the operator was then introduced, *per vaginam*, to separate the placenta and the adjacent membranes, with a view to version; at the same time a stream of ice-cold water was directed, by means of a Davidson's syringe with long nozzle, against the detached placental surface and the lacerated uterine lining, effectually astringing the torn tissues and controlling the hæmorrhage. Delivery of a living child was safely accomplished. During the three minutes occupied in the operation of turning, after the os was dilated, only one or two ounces of blood escaped. The version was facilitated and the danger of *post-partum* hæmorrhage was doubtless lessened by the additional amount of fluid, of a cooler temperature than normal, thrown into the uterus by means of the syringe. The mother made a good recovery.

The author of the report suggests the

use of this irrigation of ice-water, not only in cases like his own where version was performed, but in the primary stages of unavoidable hæmorrhage, the effects of the cold application being more easily and efficiently obtained by means of water-injection than by the use of ice.

DISLOCATION OF THE HIP, REDUCED BY MANIPULATION.—Prof. Corydon L. Ford reports, in the *Michigan Univ. Med. Jour.* for January, 1872, a case of dislocated hip in a child of eight years, the peculiar feature of which was that after eight or nine weeks' displacement, during which interval various methods had been resorted to, the reduction was successfully effected at the first attempt by the flexion, adduction and rotation of the thigh, the patient being under chloroform. In the last stage of the manipulation, when the thigh was being rotated and extended, a motion at the joint was distinctly felt, and the head of the femur was found to have resumed its normal relations. By some accident, the bone became dislocated again within twenty-four hours; it was again restored by the same method as at first, and a perfect recovery followed.

RECOVERY AFTER AVULSION OF ARM AND SCAPULA.—In the *Lancet* for Feb. 17th ult., a case is reported which shows the remarkable restorative powers of nature after severe mutilation of the body, when the conditions of age, vigor and treatment are favorable. A boy of ten years had his hand caught between two wooden rollers, and before the machinery could be stopped the whole limb, with the scapula, was torn from the body, so that it was held only by the soft tissues covering the shoulder posteriorly. The clavicle was laid bare, and the integument was stripped from the front of the thorax. The ulna, radius and humerus were comminuted, and the soft tissues covering them were shockingly lacerated.

The surgeon removed the mutilated tissues as best he could, taking a flap posteriorly to cover the exposed surface of the trunk. Water dressings were applied. The day following the injury, the patient was carried two miles in a cart over a hilly road, without the consent of the surgeon. The wound had "nearly healed" after an interval of three weeks from the injury.

THE *Atlanta Medical and Surgical Journal* for November, 1871, contains the history of a remarkable case of traumatic injury to the brain, reported by Dr. W. A. Love, of Atlanta. The patient, a boy of 14 years, was struck with an axe, the blade entering the skull over the left superciliary ridge, cutting inwards, downwards and backwards, inflicting a wound five inches long, penetrating to near the centre of the left cerebral hemisphere, and finally splitting off the parietal bone and part of the frontal bone to the squamous suture, dashing out that portion of the brain, estimated at two fluid ounces in amount, and leaving the head laid open "five inches." After the accident, the most important primary symptoms were hæmorrhage and occasional convulsions, in the intervals of which the patient was conscious. The case progressed favorably toward recovery, and in twenty-eight days all discharge had ceased. No mental impairment resulted.

A DIAGNOSTIC SIGN OF EXTRA-CAPSULAR FRACTURES OF THE NECK OF THE FEMUR.—In a recent monograph upon the subject, M. Jankerguistel arrives at the following conclusions:—

1. Increase in the size of the great trochanter is an accurate and constant sign of extra-capsular fractures of the neck of the femur.
2. The presence of this sign, once ascertained, enables the surgeon to dispense with all those manipulations, often dangerous, always painful, which are necessary to determine crepitation or abnormal mobility.
3. The study of the sign alluded to permits accuracy of diagnosis, without rendering the prognosis more grave or without compromising a cure.—*L'Union Médicale.*

THE ROOSEVELT HOSPITAL. *Messrs. Editors,*—During a recent visit to New York, I visited the Roosevelt Hospital, corner 59th Street and 9th Avenue. Perhaps a brief account of it may be of interest, especially as the system of ventilation adopted by the architect is coming into general use.

The buildings connected with the hospital are not yet entirely finished, and only two wards are occupied. The entrance, at present, is by a side-door, which opens into a hall running across the main hall at right angles. On the first story are the offices, accident and other rooms connected with the administrative department. The next three stories are each occupied by a large ward, with ward-kitchen, dining-room, nurses' room and rooms for house-officers, or for private patients, at one end, bath-room, water-closets, room for drying garments and towels, and a small room with wash-bowl, &c., at the other end of the ward. An elevator carries up patients and visitors, another is used for food ; shafts allow foul linen and clothing, as well as the dust and dirt from the wards, to be dropped to the lower story.

In the ward-kitchen, of each story is a ward-range, which is used for heating food already cooked, and, also, for the preparation of gruel, tea and delicacies. Cars, made of zinc, with double sides, back and top, and supplied with hot water, are used to convey food from the kitchen to the elevator.

The bath-room connected with each ward contains conveniences for full baths, hot or cold, sitz-baths, shower-baths, steam-baths, contrivances for hot or cold douch, and a marble slab on which to shampoo patients. The water-closets contain a sink into which slops can be emptied, and the waste pipe can be flushed with steam; the water-closets are all ventilated by a separate ventilating-flue, in which a draught is maintained by the steam pipes or by lighting gas jets. The drying-rooms are heated by steam.

The wards are ventilated in two ways. At each end of a ward are two openings at the top and two at the bottom which open into large flues communicating through the cellar with a large ventilating shaft, a hundred feet high or more. This shaft is divided into four compartments, each five or six feet square, by a partition twenty or twenty-five feet high. In the centre of the shaft is an iron smoke-stack, receiving the heat from the furnace, escape steam, &c., by which the shaft is heated so as to cause an upward draft. A coil of steam-pipe in each division serves as an accessory in case the heat from the central flue is not sufficient. When the iron door affording entrance to one of these chambers was opened, the power of suction in this ventilating shaft could be approximately estimated, the rush of air being almost enough to take away one's breath. The means of communication between this ventilating shaft and the flues in the wards are ample, though I cannot state their exact size.

The other method of ventilating the wards is by means of several, I think six, openings near the floor, which enter flues passing up in the wall to a room under the roof, covered with glass, and communicating with the outer air by a large zinc ventilator on the ridge-pole. The opening to this ventilator from the chamber can be closed by a damper. The sun, heating the chamber through the glass, causes a current of air upwards through the ventilator, and so draws the air up out of the wards.

The heated air passes into the wards through registers at the top. The cold air is received through a shaft fifty feet high into a conduit running under the kitchen and laundry. This conduit sends off branches which pass on each side of the cellar of the pavilion, in which are the wards. The air is heated in small chambers by coils of steam-pipe, and passes up flues in the walls to the registers in the wards. Valves in the cellar enable one to close any of these flues as desired. No fan is used, though a room was left for one at the base of the cold-air shaft, in case it should ever be needed.

The kitchen, laundry, &c., are in a separate building connected with the pavilions by corridors. The ranges are in the centre of the kitchen ; above is a large, flaring ventilator to convey all savory odors to the outer air. There is a large zinc hot-chest, heated by steam, to keep food hot. A bakery—not yet in operation—store-rooms, pantry, &c., complete the culinary department.

The laundry is furnished with the most convenient washing-machines, and a chest for steaming foul linen and for disinfecting. The ironing-room has a small apartment in which to heat the irons, so as to avoid overheating the work-room.

A surgical ward in a separate pavilion is not yet finished. It will contain two fire-places, in addition to other means of ventilation ; the water-closets and bath-room will be in an L separated by a short passage from the ward.

This account I believe to be substantially correct. No attempt has been made to give dimensions or numbers, for the visit was made without the intention of describing what was seen. I must express my sense of indebtedness to the visiting and resident physicians, both of whom took much trouble to show me the different departments and explain the working of the contrivances for the convenience and comfort of patients and physicians.

S. G. W.

On the Use of Pepsine in Diarrhœa. By A. Davidson, M.B.—There is a form of diarrhœa often observed in young children from one to two years old, in which the ordinary treatment by antacids, aromatics, astringents, &c., has no good effect; but if pepsine be administered, it scarcely ever fails to restore the child at once to health. The diarrhœa in this instance arises from feebleness of the digestive powers. A large proportion of the food is not assimilated, and consequently passes on and appears in the motions in an undigested state.

These cases are frequently met with in hospital practice, and are easily recognized. They are not more prevalent in the summer months, but occur at all times of the year. They are most frequent after the period of weaning; but sometimes weakly children fed at the breast are affected in this way. When the children are brought under medical observation, it is usually found that the diarrhœa has existed for several weeks or months, and has resisted all the ordinary treatment by medicines and regulation of diet.

The symptoms are as follows: The motions are frequent, and vary considerably in character in different cases, but always show the presence of undigested food. Usually, the action of the bowels takes place directly after the time of feeding, and this circumstance leads the mother or nurse to describe the child's state as one in which the food passes right through it, and does it no good. Of course, it is impossible that the food really passes through the intestinal canal so rapidly as this description would imply. What really occurs, is that the ingestion of food into the stomach excites the action of the bowels, and leads to the expulsion of the half-digested food previously lying in the large intestines.

Considerable disturbance of health usually results from this form of diarrhœa, but by no means the same amount of exhaustion or emaciation as would follow an ordinary attack of catarrhal or inflammatory diarrhœa of the same duration.

In the treatment of this class of cases, it is utterly useless to administer the aromatic and astringent mixtures, or other medicinal remedies suitable for ordinary diarrhœa; but if small doses of pepsine be given with the food, immediate improvement is the result, and ultimately complete cure.—*London Practitioner.*

Transformation of Medulla into Bone.—M. Demarquay lately presented to the *Académie de Médecine* an interesting example of ossification of the medulla of the left humerus, resulting from a gun-shot fracture received nearly a year before—namely, on the 2d of January, 1871. At the time of admission of the patient, the case was considered favorable for conservation of the limb, but under treatment union did not take place, and in the month of June following not only had numerous abscesses formed upon the limb, but it had considerably increased in size along its entire extent, at the same time that numerous fistulous openings leading through a thick layer of new osseous tissue rendered easy the detection of necrosed bone in its interior. The arm being disarticulated and the humerus sawn along its length, it was found that the layer of new bone by which it was surrounded presented numerous spaces communicating with the dead bone, within which comprised the entire thickness of the humerus, considerably diminished in volume, while the extremity and circumference of the medulla had undergone osseous transformation, the central portion being destroyed. The circumstance was interesting as showing that ossification of the medulla may take place, a fact which has from the most ancient time been successively accepted and denied by physiologists, but lately proved by Ollier, although only in a pathological condition. On comparing the ossification of the medulla with bony formations furnished by the periosteum, we observe the small formative power of the former as compared with the latter when separated from mortified bone; the periosteal bone has a considerable volume, while the ossified medulla is thin and fragile. M. Demarquay observed that in the specimen before him the transformation was in no way mere calcification of the medulla, but veritable ossification taking place in the medullary membrane as described by Bichat; and if the present facts have not demonstrated the existence of that membrane they have at least shown that the elements of the circumference of the medulla are alone capable of transformation under the influence of long-continued irritation.—*The Doctor.*

A Young Mother.—Dr. Haining reports, in the *British Medical Journal* for October 28, the case of a young girl who became a mother at the early age of 12 years.

Medical Miscellany.

MASSACHUSETTS MEDICAL SOCIETY.

PROGRAMME FOR TUESDAY, JUNE 5TH.

Ten o'clock, A.M.—Operations, Surgical Visit, and Exhibition of Patients, at the Massachusetts General Hospital and the City Hospital.

Twelve o'clock, M.—Meeting at the Lowell Institute, Washington St. (rear of Marlboro' Hotel), where papers by the following gentlemen will be read: 1. Alfred L. Haskins, M.D., Diseases of Cæcum and Appendix; 2. George H. Lyman, M.D., Subinvolution of the Uterus; 3. B. H. Tripp, M.D., Adipocere; 4. Charles P. Putnam, M.D., The Food of Infants; 5. B. J. Jeffries, M.D., The Value of the Ophthalmoscope in Diagnosis to the General Practitioner. Adjournment at 2 o'clock.

Four o'clock, P.M.—The Society will re-assemble at the Lowell Institute for the further reading of papers and for their discussion. Adjournment at 6 o'clock.

During the afternoon the Warren Museum at the Mass. Med. College, North Grove Street, the Warren Museum of Natural History, 92 Chestnut Street, the Cabinet of Med. Improvement Society, Perkins Building, 36 Temple Place, the Museum of the Boston Society of Natural History, Berkeley Street, and Dr. Wigglesworth's Museum of Dermatology, 25 Charles Street, will be open to the Society.

The Annual Meeting of the Councillors will be held at the Rooms of the Society, Perkins Building, No. 36 Temple Place, Boston, at 7.30, precisely.

PROGRAMME FOR WEDNESDAY, JUNE 6TH.

The Annual Meeting of the Society will be held at the Lowell Institute, Boston, at 10 o'clock, A.M.

Order of Proceedings.—1. Reading of Records and of names of those who have become Fellows and those who have deceased, during the year; 2. Reports of Committees; 3. Treasurer's Report; 4. Medical Papers and Communications:

J. B. Treadwell, M.D., Cardiac Diseases, and Diseases from Sudden and prolonged Exertion;

F. B. Greenough, M.D., Instrumental Treatment of Stricture of the Urethra;

John P. Reynolds, M.D., Notes in the Lying-in Wards of Vienna.

At 1 o'clock, precisely, the Annual Discourse will be delivered, by Thomas N. Stone, M.D., of Wellfleet.

The Anniversary Dinner will be served at Music Hall, Winter Street. Members will pass in to the dinner by a private entrance from the Lowell Institute, being called in the order of seniority. Richard M. Hodges, M.D., Anniversary Chairman.

MASSACHUSETTS GENERAL HOSPITAL.—At a recent meeting of the Trustees of this Institution, Dr. Henry H. A. Beach was appointed one of the Surgeons to Out-patients.

DR. CHARLES E. BUCKINGHAM, of this city, has been elected a member of the Obstetrical Society of London.

BOOKS RECEIVED.—Historical and Biographical Memoirs, Essays, Addresses, &c. By George B. Wood, M.D., LL.D. Philadelphia: J. B. Lippincott & Co. Pp. 576. (From James Campbell.)

PAMPHLETS RECEIVED.—Half-Hour Recreations in Popular Science. No. 3—Spectrum Analysis Explained, illustrating its Uses to Science, and including the Theory of Sound, Heat, Light and Color. Boston: Lee & Shepard.—Ueber die verschiedenen Formen des Puerperalfiebers. Nach Beobachtungen in der Züricher Gebäranstalt. Inaugural-Dissertation von Susan J. Dimock aus Boston. Zurich, 1871. Pp. 52.—Valedictory Address to the Twentieth Graduating Class of the Woman's Medical College of Pennsylvania. By Henry Hartshorne, M.D., Prof. of Hygiene and Diseases of Children. Pp. 14.—Der Kindergarten in Amerika. Für Eltern, Lehrer und Kinderfreunde kurz dargestellt. E. Steiger, New York. Pp. 32.—Fifth Report of the Medical Staff of St. John's Hospital, Lowell, April 1, 1872. Pp. 12.—Second Annual Report of the Board of Directors of the Manhattan Eye and Ear Hospital, New York. Pp. 24.—Transactions of the Twenty-first Anniversary Meeting of the Illinois State Medical Society, held at Peoria, May 16, 1871. Pp. iii., lvi. and vii.—Enthusiasm the Condition of Professional Success. A Valedictory before the Graduating Class of the Department of Medicine and Surgery in the University of Michigan, March 27, 1872. By A. B. Crosby, A.M., M.D., Prof. of Surgery, &c. Pp. 19.

MARRIED,—In Cambridge, 14th inst., Dr. Norton Folsom, of Boston, to Miss Elizabeth Cushing Howe.

DIED,—6th inst., Charles J. Barbour, M.D., of Winchendon, Mass., 27.—In Sutton, N. H., Dr. Robert Lane, 86.—In Philadelphia, 8th inst., Dr. John S. Kitchen, U.S.N., 42.—In Savannah, Ga., Dr. George W. Fay, of Baltimore, Md., a native of Westboro', Mass., 40.

Deaths in seventeen Cities and Towns of Massachusetts, for the week ending May 18, 1872.

Cities and Towns.	*No. of Deaths.*
Boston	139
Charlestown	11
Worcester	39
Lowell	13
Milford	6
Chelsea	8
Cambridge	15
Salem	10
Lawrence	11
Springfield	2
Lynn	11
Fitchburg	5
Newburyport	5
Somerville	8
Fall River	12
Haverhill	3
Holyoke	12
	310

Prevalent Diseases.	
Consumption	51
Scarlet fever	17
Measles	16
Pneumonia	15
Typhoid Fever	10
Whooping Cough	9
Croup and Diphtheria	7

There were three deaths from smallpox in Boston, and one in Fitchburg. Of the deaths from measles eight were in Worcester. Of the deaths from scarlet fever seven were in Worcester. Of the deaths from typhoid fever nine were in Boston.

GEORGE DERBY, M.D.,
Secretary of State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, May 18th, 139. Males, 66; females, 73. Accident, 3—apoplexy, 1—inflammation of the bowels, 3—bronchitis, 9—inflammation of the brain, 2—congestion of the brain, 1—disease of the brain, 3—cancer, 2—cerebro-spinal meningitis, 2—consumption, 25—convulsions, 6—croup, 1—debility, 5—diarrhœa, 4—dropsy, 3—dropsy of brain, 1—drowned, 1—diphtheria, 2—dysentery, 1—erysipelas, 1—scarlet fever, 2—typhoid fever, 9—gangrene, 1—gastritis, 1—disease of the heart, 6—insanity, 1—disease of the kidneys, 1—inflammation of the lungs, 6—marasmus, 5—neglect, 1—old age, 5—paralysis, 1—premature birth, 1—peritonitis, 1—puerperal disease, 3—smallpox, 3—disease of the stomach, 1—ulcer of the stomach, 1—syphilis, 1—suicide, 1—tumor, 1—whooping cough, 4—measles, 2—unknown, 5.

Under 5 years of age, 57—between 5 and 20 years, 16—between 20 and 40 years, 27—between 40 and 60 years, 18—above 60 years, 21. Born in the United States, 100—Ireland, 22—other places, 17.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

New Series.] Thursday, May 30, 1872. [Vol. IX.—No. 22.

Original Communications.

ANOMALOUS CASE OF ANGINA PECTORIS.

By C. W. Stevens, M.D., Charlestown.

Mr. L., aged 22, clerk in a carpet store, is a man of general good health. His parents are still living and well. He smokes three or four cigars daily, and usually retires at midnight or later. Does not use spirits to excess. Has no syphilitic taint. Has had no previous cardiac affection.

April 11th, 1872.—He ate his supper as usual, feeling perfectly well bodily, but was despondent, as he had had a lover's quarrel a few days before. At 8.30, he started out to make a call, but was arrested on his way by a pang in the cardiac region, palpitation and great dyspnœa. He had to be assisted home, where he walked with great difficulty. His hand was clutched over his heart, and his anguish was extreme. He soon went into convulsions, of a tetanoid character. The spasms occurred every few minutes, and corresponded to the paroxysms of pain. He would grow red in the face, his eyes became turgid and bloodshot, and rolled in their orbits, while his hands grasped sometimes the bed and sometimes hovered over his heart like a vulture's talons. The pupils were dilated; respiration staccato, panting and suspended during the tonic rigidity. No frothing at the mouth, no biting of tongue, no coma, no cyanosis of face. If he was questioned after a spasm, he would reply rationally, saying it was like knives in his heart, and he could not breathe. There are, occasionally, during the pain, hallucinations and slight delirium. Pulse 108, bounding. Temperature normal. Heart sounds tumultuous, with no abnormal murmurs, but with hammer-like impulse. I immediately gave, hypodermically :—

Sulph. morphiæ,	gr. $\frac{1}{2}$;
Sulph. atropiæ,	gr. $\frac{1}{160}$;
Aquæ,	♏ xij.

and ordered the following mixture :—

Mist. assafœtidæ,	℥j.;
Syr. simpl.,	ʒiv.;
Chloral hydrat.,	ʒss.

one table-spoonful every half-hour.

10.30, P.M.—As his pulse remained bounding and 108, and the spasms were not controlled, I gave at once tinct. veratri viridis gtt. x. ex aqua.

11, P.M.—Fallen into a quiet slumber and breathes easily.

April 12th, 2, A.M.—After three hours' sleep, he suddenly awoke with the distress and entered into convulsions.

Chloral,	gr. xxx.;
Bromid. potass.,	ʒj.;
Syr. rhei aromat.,	℥jss.

one table-spoonful every half-hour.

3.30, A.M.—As the mixture seemed to have no effect, I began to use ether and in half an hour he was fully under its influence, and the convulsions ceased.

9, A.M.—After five hours, he was quiet; the spasms and anguish continued, but not so violently as during the night. I began again the use of ether, and continued it until he had taken in all twenty ounces, but it had no longer any effect either to relieve the distress or the spasms, nor could he be got under its influence; I therefore relinquished it.

12, M.—Subcutaneous injection of morphine and atropine, same dose as before, with six leeches over the heart. After the leeches had bled freely, I applied over the heart a belladonna plaster.

1, P.M.—I now called in Dr. C. Ellis, who witnessed the paroxysms and concurred in the diagnosis of angina pectoris without cardiac lesion, and probably of a neuralgic nature. He recommended a continuance of hypodermic injections, and these failing, to pass rapidly under the nares nitrite of amyl, as suggested by Anstie. But at 2, P.M., the distress and spasms ceased without any recurrence. Convalescence was rapid, with no evidence of visceral lesion.

Dr. Ellis confirmed my views of the probable reflex nature of the spasms, the cardiac plexus or ganglions reäcting on the pneumogastric and sympathetic. These spasms were not the writhing or contorsions from pain, but were automatic convulsions of rhythmic order and sequence. They were remarkable by their long continuance and of anomalous character. It would seem as if Trousseau's expression "cardiac epilepsy" were highly appropriate to this case. It appeared to me that it was the leeches which were of the most benefit to him, and were the most important agent in the cessation of the pain.

ATHETOSIS.

By Theodore W. Fisher, M.D., Boston.

The above name is given by Dr. Hammond, in his late work on Diseases of the Nervous System, to certain irregular movements of the fingers and toes, the result of cerebral disease. In the two cases cited, the extremities on the right side only were affected, the movements of the fingers being more marked in each case. Epilepsy and other nervous disorders were noticed, which might properly be referred to some common centric lesion.

Having lately seen a case which corresponds to Dr. Hammond's description, I briefly narrate it, premising that only the most hasty examination was possible. The patient was presented to determine the propriety of treatment in a hospital for the insane. He could give no adequate history of his condition, and was very unwilling to prolong the interview.

He was a man, 52 years of age, whose father and grandfather had been insane. He had led an active, official life, and was of temperate habits. Four years ago, the motions of the fingers of his right hand were first noticed, with a generally "nervous" condition. His business capacity, however, was not especially impaired until two years ago, when, after severe "neuralgic" pains in the right side of the head, partial loss of vision in the right eye was discovered, followed by a similar failure of sight in the left eye. Dr. Hasket Derby diagnosticated organic disease of the brain. He also suffered from occasional loss of power or incoördination of the muscles of the jaw. Said the right side of it felt for a moment as if paralyzed. For the last two months, he has been growing moody, irritable and forgetful, but has continued to frequent the office where he had long been employed, under the impression that his services were still indispensable. Has at times been depressed and talked of suicide. Of late, forgets the time of day, and wanders from home. Is suspicious, obstinate, and occasionally gives way in public to violence of language and conduct.

In regard to the movements of the fingers of the right hand, it is only possible to say, from a brief and casual observation, that they resembled a limited and unilateral chorea. There was a constant change of position, and the patient pressed his fingers on the table as if to steady them. In this position they rose and fell as if in an awkward attempt at "drumming." The most noticeable distortion was a tendency to extreme extension of the second finger. On being requested to write, he clumsily gathered his fingers into place around the pencil, and wrote a word or two correctly, but stiffly, with a space between each letter.

Dr. Hammond is in doubt as to the pathology of his cases, but thinks "athetosis" has analogies with "chorea and cerebro-spinal sclerosis, but is clearly neither of these diseases." It seems a little premature, to style it an "affection," since it may be only a symptom, in common with others, of centric disease. It seems to be a form of incoördination confined to the centres, controlling the muscles of the fingers and toes. If this centre or these centres could be precisely located, we need not look for any coarse or even diffused organic lesion at that spot. In disorders of the nervous functions, the lesion is more likely, one would think, to affect the proper centre indirectly, by interrupting communication with higher controlling centres, or by reflex irritation, or by affecting the blood supply. Nervous exhaustion of certain local nerve centres is efficient in producing paralysis, as in peri-palsy and in hæphestic hemiplegia, and it is not unlikely a nervous habit of incoördinate movements might be grafted on to a similar condition.

I have in mind a patient, a lady, in whose case I have noticed incoördinate movements, especially in the left hand. There is a *sensation* in the hand which, in this case, calls out instinctive motions as a method of relief. There is an irresistible habit of touching the left eyebrow with the left hand, and a jerking motion of the head to one side, not constant, but occasional, with a sensation of fatigue in the muscles of the neck. These motions have continued for years, and have become habitual, accompanied by a marked state of neurasthenia and an annoying persistence of certain habitual ideas, as of dishes falling down, or clothing getting out of a trunk when engaged in arranging them. There is in this case a slight drawing of the left cheek on smiling, and, according to Dr. Jeffries, "dynamic divergent strabismus" of the right eye, with a high degree of myopia.

In the case first mentioned, there is no doubt organic disease of the brain, of the exact nature or the precise location of which I have nothing to say on a single examination. In the second case, there may also have been, years ago, some slight lesion, but there seems to be no evidence of progressive cerebral disease.

MORTALITY STATISTICS OF THE THREE LEARNED PROFESSIONS.

By J. M. Toner, M.D., Washington, D. C.

Having had an opportunity a few days since to examine some of the advance sheets of the forthcoming U. S. Census report for 1870, I have compiled the following statements there given of the number of deaths returned as occurring among the three learned professions of our country—theology, medicine and law—for the year ending June 30, 1870, and send it to you as possessing some interest to the medical profession at large. I have been unable to obtain the number returned as engaged in each of these professions for the year 1870.

For the year 1850 there were returned 28,842 clergymen ; 40,564 physicians ; and 23,939 lawyers. For the year 1860 there were returned 37,529 clergymen ; 54,543 physicians ; and 33,193 lawyers.

It is perhaps fair to presume that each retains about the same proportion to each other in the census of 1870.

The following is the number of deaths reported among clergymen, physicians and lawyers in each State and Territory of the United States for 1870 :—

	C.	P.	L.
Alabama,	19	30	14
Arkansas,	2	11	9
California,	17	28	29
Colorado,		4	3
Connecticut,	10	14	9
Delaware,	4		1
Dist. Columbia,		1	6
Florida,	7	4	5
Georgia,	15	30	12
Illinois,	33	45	31
Indiana,	27	35	17
Iowa,	19	29	8
Kansas,	9	10	6
Kentucky,	10	32	20
Louisiana,	8	20	13
Maine,	12	13	12
Maryland,	13	23	16
Mass.,	41	42	30
Michigan,	17	23	23
Minnesota,	10	2	2
Mississippi,	7	20	14
Missouri,	30	40	13
Montana,		1	1
Nebraska,	2	1	2
Nevada,		1	2
New Hamp.,	10	20	10
New Jersey,	15	20	13
New Mexico,			1
New York,	74	136	114
N. Carolina,	16	15	10
Ohio,	46	66	31
Oregon,	3	5	
Pennsyl.,	57	94	50
Rhode Island,	2	5	1
S. Carolina,	13	10	7
Tennessee,	13	23	17
Texas,	9	33	9
Utah,	1		
Vermont,	9	9	4
Virginia,	23	25	15
Washington,		1	
West Virginia,	7	4	3
Wisconsin,	18	22	12
Wyoming,	1		
	629	947	595

Causes of Death assigned.

	C.	P.	L.
Unknown,	10	15	7
General diseases,	242	344	234
Diseases of the nervous system,	77	143	93
" " circulatory system,	54	73	45
" " respiratory system,	84	130	58
" " digestive system,	76	105	61
" " urinary and generative organs,	32	37	19
Diseases of the organs of locomotion,	3	4	
" " integumentary system,	1	1	3
Condition not necessarily associated with general or local diseases,	39	31	19
Poison,	2	18	13
Accidents and injuries,	9	46	43

Reports of Medical Societies.

BOSTON SOCIETY OF MEDICAL SCIENCES.

EDWARD WIGGLESWORTH, JR., M.D., SECRETARY.

Feb. 27th, 1872.—The Society met at the house of Dr. Richardson, Dr. Ellis in the Chair.

Elimination of Alcohol by the Kidneys and Breath.—Dr. Edes read a paper upon the elimination of alcohol by the kidneys and breath as determined by the chromic acid test. He found that the elimination by the breath was the more constant and continued longest at its maximum, but that after large doses, which had a perceptible narcotic effect [40 c.c. of strong alcohol], the urine, for the first two hours, and more especially the first hour, excreted a considerably larger amount. After five or six hours, the amount already eliminated is very small [say 1.5 c.c. when 40 c.c. had been taken], and the rate has fallen so low that several weeks would be required to complete the removal from the system.

With smaller doses [20 c.c. and 5 c.c.], the elimination by the kidneys is hardly perceptible, much less so than that by the breath. Lieben [Annalen der Chimie et Pharmacie, 7 Suppl. Band 1870] was able to collect from the urine of persons who had taken 22. 5 c.c. of alcohol in the form of light wine less than 0. 1 c.c. alcohol. It is probable that these results are much modified by the addition of other ingredients, as in wine or beer, by dilution, temperature, habit or idiosyncrasy.

Dr. White mentioned that in his experiments of a similar nature, made for the Legislature under Gov. Andrew, he had taken wine in large doses, but had taken it *with food* and at 10 o'clock in the evening, so that sleep intervened before any urine could be examined. In two cases, he had found that it was not until 4, P.M., the day following, that the kidneys ceased to excrete alcohol. He thought that the kidneys account for but little of the alcohol which has been taken, and that people are differently affected both as to time and quantity of elimination; different mucous membranes varying in receptivity of impressions.

Dr. Edes said that diuresis might be due to flushing of the kidneys, *i. e.* dilatation of its bloodvessels, and this might vary as blushing varies in different individuals.

Dr. Fitz spoke of the retention, or else change in the system, of that part of the alcohol taken which was not eliminated as alcohol.

Dr. Edes concurred with Dr. Fitz that it is easy to say—all alcohol taken is eliminated as such and is therefore not food, but this cannot be proved.

Dr. White added that this was Gov. Andrew's point, and that the conclusions of Lallemand, Périn and Duroy were not warranted by their own experiments.

Dr. Bowditch suggested that alcohol might be considered a food as producing heat, *i. e* change, *i. e.* force, in other words as augmenting the natural forces.

Dr. White objected to this view, on the ground that alcohol was a stimulant or force exciter rather than a force producer.

Dr. Hay thought it might be at one time a food and at another a stimulus. He held it of value for the aged, though not for the young.

Dr. Edes cited cases showing the diminished necessity for food when alcohol was taken.

Dr. James cited a case of Dr. Bird's, where a Miss Child lived 5–8 months on gin, taking no solid food, and then by degrees ceased its use.

Dr. White believed that other narcotics can be used in the same way to an even greater extent.

Dr. Ellis said they would act as arrestants of change in such cases.

Dr. White said, the same rule applies to alcohol.

Physiology of Semi-circular Canals of Ears.—Dr. Bowditch exhibited a pigeon, which staggered when it walked and seemed to lack the normal power of coördinated movements. This, he said, was due to injury of the semi-circular canals of the ears. Flourens [Comptes Rendus, vol. lii.) was the first to make a careful study of this portion of the ear. He made the following observations on pigeons:—

I. Destruction of a semicircular canal causes the bird to execute movements of the head in a plane corresponding to that of the canal injured; *i. e.* destruction of the horizontal canal causes movements of the head from side to side, and destruction of one of the vertical canals causes up and down movements.

II. The body may follow these movements of the head, giving rise to rotary movements or somersaults.

III. An injury involving all the semicircular canals causes violent, irregular movements, in which the bird struggles in vain to retain its equilibrium.

IV. These movements become more violent and less coördinated when the animal is excited.

V. These phenomena persist after the healing of the wound.

VI. To produce these effects, not only the bony but also the membranous canals must be destroyed.

VII. Hearing still persists after destruction of the semicircular canals, but is lost when the cochlea is injured.

The observations of Flourens have been confirmed by many other physiologists, both French and German.

Quite recently, Prof. Goltz, of Halle (Pflüger's Archiv für die gesammte Physiologie iii., 172), in investigating the subject, has found that the loss of coördination of movement is much more strongly marked when the bird attempts to execute a movement directed to some point outside the body (*e. g.*, to pick up the grain), than when the movement is directed to some part of the body itself, as, for instance, in pluming the feathers.

He also found that when a bird is executing violent and irregular movements and struggling in vain to stand erect, if the head be held steadily between the fingers in a normal position for a few moments, the animal will recover temporarily the control over the limbs and stand quietly in one position.

Dr. Bowditch, about four weeks since, performed the experiment of destroying the semicircular canals of the pigeon exhibited and of one other.

The bird on which the operation was the more successful had very violent paroxysmal attacks, consisting of rotatory movements combined with somersaults, and during the continuance of the paroxysm seemed entirely unable to execute any voluntary movements. Dr. Bowditch was able to confirm the observation of Goltz, that the attacks may be cut short by supporting the head artificially in a normal position. He also made the additional observation that an attack may be brought on by holding the head for a short time in an abnormal position, as, for instance, with the occiput resting on the ground.

The bird injured its head so much by beating it against the ground, that the observation was continued only four or five days.

The autopsy showed that the operation had been only partially successful on the left side, but on the right the canals had been entirely destroyed. To account for the above phenomena, various theories have been proposed. Vulpian considers that the destruction of the semicircular canals causes a violent irritation of the acoustic nerve, and that the irregular movements which result are analogous to those executed by the animal when frightened by a sudden noise.

Brown-Séquard is of the opinion that irritation of the nerve-fibres of the ampullæ by traction on the membranous canals gives rise to the movements in question.

The persistence of the phenomena long after the healing of the wound, seems difficult to account for on either of the above theories.

Goltz considers that the semicircular canals constitute an apparatus by means of which indications are given to the nervous centres of the position of the head, and the reflex movements called forth which tend to keep the head and body in equilibrium.

It is the pressure of the fluid in the canals, which of course must vary with the position of the head, that is supposed to perform this function.

On this theory a bird with the canals destroyed cannot judge correctly of the position of its head, and is unable therefore to execute the muscular contractions which are necessary for keeping it in equilibrium. Inability to keep the head in a normal position causes disordered movements of the whole body, as was shown by Goltz in the experiment of fastening a bird's head to its breast in an inverted position. A bird thus operated on, when thrown into the air, makes violent movements of the wings, but falls directly to the ground, having lost entirely the power of making the coördinated muscular contractions which are necessary for flight.

Pathological cases indicating that a similar mechanism exists in the human ear, have been reported by various authors. Brown-Séquard (Phys. and Path. of Centr. Nervous System, p. 193) speaks of vertigo and convulsions being caused by irritation of the acoustic nerve, as, for instance, by cold injections into the meatus. He also mentions rotatory movements in cases of suppurative inflammation of the ear.

Dr. Jeffries then showed some sections of the eyeball, made by Dr. Curtis, of New York.

Dr. Wadsworth showed a specimen of leptothrix from the canaliculus lachrymalis, a fungus consisting of fine granules and threads. Foerster, at Breslau, has had one such case, and Horner, of Zurich, two or three, not as yet reported. Graefe, in 1869, had seen only ten cases.

Optic Rod in the Articulates.—Dr. Jeffries said that Max Scuhltze held, contrary to Leydig, that the termination of the optic rod in the facetted eye of the articulates was not of nervous character, but was a part of the refractive apparatus.

The central portion within these cones, which Schultze found more highly refractive, Dr. Jeffries compared to the nucleus of the lens, which, in fishes, for instance, did not change with the preservative fluid like the rest of the crystalline lens, and in man, as recently shown by Dr. Forlanini, never suppurates when the cortical portion undergoes this change.

He spoke, also, of the central hardening in congenital cataract, and the consequent reception of an image through the cortical portion alone. He considered cataract an interference with the endosmosis and exosmosis.

Dr. Wadsworth thought that the changes in cataract were of a degenerative rather than an inflammatory nature. The nucleus and the more peripheral layers are of the same nature, and the whole lens, with the exception of the outermost fibres, is dead tissue in the sense in which the outer layers of the epidermis are dead tissue, *i. e.* incapable of proliferation or inflammatory change.

Dr. Hay spoke of the occasional disappearance of lenticular opacity.

Dr. Wadsworth had seen a case where a foreign body entered the eye, wounding the edge of the lens, in which case the lens became opaque, apparently, throughout, so that no view of the fundus could be obtained. In the course of a few weeks, this opacity cleared up everywhere, except in the immediate neighborhood of the track of the foreign body, so that the fundus and the foreign body were distinctly seen.

Dr. Ellis spoke of pure mechanical displacement of the elements of the lens as a cause of opacity, as is seen to occur where a lens out of the body is broken up with the fingers. This could hardly be endosmosis and exosmosis.

Dr. Bowditch considered that the admission of air, and the consequent change in the position of particles, would produce opacity.

Dr. Wadsworth added that such an opacity arises, also, from the infiltration of fluids, giving different layers of varying refractive densities, and, also, giving rise to numerous reflections.

Pressure under and behind the eye in frogs produces slight hazy opacity of the cornea, which passes off almost as soon as the pressure is removed.

SELECTIONS FROM THE RECORDS OF THE OBSTETRICAL SOCIETY OF BOSTON.

SECRETARY, J. B. TREADWELL, M.D.

Oct. 14th, 1871. Dr. Buckingham in the chair.

Subinvolution of the Uterus.—Dr. Sinclair read a report of five cases of subinvolution of the uterus. (*Vide Boston Med. and Surg. Journal*, vol. viii. p. 284, new series.)

Dr. Lyman asked if it was possible that there had been proper involution of the uterus subsequent to delivery in these cases.

Dr. Sinclair thought not.

Professional Management of Menstruation.—Dr. Cotting spoke of the professional management of menstruation. He regarded menstruation as a function not essential to health. Females were well before it begun and well after it had ceased. It was something imposed upon the human female for special purposes. He instructed mothers that they had better not pay particular attention to this function in their daughters if they were well in other respects. Menstruation sometimes began and then ceased; sometimes it did not appear except in a very trifling manner, and yet there might be in other respects perfect health. He did not know of any remedies which were sure to produce *natural* flow; if any agent gave rise to flow, it was by producing congestion, which was a different thing from the natural function. If pain was present, it should be alleviated. The danger of "forcing" was greater than that of letting alone. There is danger in interference, safety in non-interference. Those in whom the function commences and subsequently ceases, and with whom measures are adopted to cause its reäppearance, fare worse than those who are not subjected to the ordinary treatment by drugs. Dr. C. gave illustrative cases, showing that those treated do worse in the long run than those not treated. The same drugs are to be used, according to latest authorities, for amenorrhœa and menorrhagia. From this fact, he drew the inference that we know very little about the therapeutics of the former, at least. The general health and not the special function of menstruation should be attended to.

Voted, on motion of Dr. Read, that the 'Professional Management of Menstruation' be made a special subject for discussion at the next meeting, and that Dr. Cotting be requested to prepare a paper on the subject.

Menorrhagia, with Symptoms of Purpura. Death of the Patient.—Dr. Fifield reported the case.

Three weeks ago he was called into the country to see a woman, 45 years of age, who had always enjoyed good health. She had borne several children, and the menses had been regular up to the time when he saw her. Just before he was called, she menstruated, and the flow being rather profuse she was treated by her physician with the result of checking the flow. Eight days before Dr. F. saw her, and subsequent to treatment for profuse menstruation, a small dark spot appeared between the incisor teeth; a small clot of blood was removed from its centre, and the gum subsequently sloughed. Ten or twelve purpuric spots appeared, there was a bloody discharge from the vagina, the uterus was enlarged and the os open. A large, solid clot of blood was removed from the uterus. Examination by rectum revealed two bodies, one on each side of the uterus. The discharges from the bowels became involuntary, and, twelve hours later, she died.

Post mortem, twelve hours after death. The heart was studded over with dark spots; rectum in a similar condition; uterus engorged; Fallopian tubes dilated and enlarged; left ovary converted into a clot of blood; right ovary, liver and spleen normal; fluid in the Fallopian tubes dark and bloody; triangular-shaped membrane in the uterus; apparent loss of mucous membrane at cervix. From the sides of this triangular membrane two delicate membranes extended into the Fallopian tubes; there was contraction of these tubes at one point.

Uterine Pains checked by the Will of the Patient.—Dr. Read reported the case.

The woman, in labor, was very timid and frightened, and controlled her pains, so that they had no effect. Dr. Read gave ether, which stopped the pains entirely. He withdrew it, and finding that they did not return, delivered with forceps. This was the only case he had seen in which labor pains were subject to the will of the woman.

Peculiar Condition of Os Uteri following Abortion.—Dr. Read reported that he had had, within the past few months, several cases presenting the same general symptoms. Cervix uteri rather enlarged; os tincæ not patulous or materially changed. The cervix to the touch felt as if it had a hard, almost bony centre, with a not very thick covering of soft tissue. These cases had yielded to applications of iodized cotton, with a packing of cotton saturated with glycerine. He found, on questioning the patients, that in every case there had been an interruption to pregnancy, and that the miscarriage or abortion had occurred last in order where the patient had borne children. He was disposed to think that this abnormal condition of the cervix was the result and indication of a miscarriage, either natural or procured; he had never noticed it under other circumstances. In one case, the miscarriage had occurred seven years before. In answer to inquiries, Dr. Read said that the uterus was not tender nor the os patulous; there was no abnormal discharge from it, nor was the organ of unusual length. He inquired if any gentleman had noticed the same condition, but no one answered in the affirmative.

Dr. Abbot asked Dr. Read if the cases referred to by him were cases of induced abortion.

Dr. Read replied that about one half of the women acknowledged it.

Dr. Lyman exhibited Zwancke's pessary, and said it was recommended by its simplicity and the ease with which it could be introduced.

Dr. Fifield said he had formerly used this form of pessary, but had to abandon it on account of its becoming eroded very quickly. He had one made of pure gold, which worked well.

Dr. Read asked if there was a normal increase of temperature after delivery. He had a patient in whom it was 102° for ten successive days, from no assignable cause.

Delivery under Peculiar Circumstances.—Dr. Stedman, present by invitation, reported the following case: A lady, whom he had attended in two confinements, went, during the heat of summer, to an island in the harbor to "camp out," although near the time of delivery. Labor commenced, and she started for home. The head was born before she reached the house, and the child was delivered in the carriage. Dr. S. found her doing well, although she had lost considerable blood. He was putting on the binder, when her jaw dropped and her pulse failed. He found the uterus dilated, and gave ergot and stimulants. Alternate contraction and dilatation followed, and the patient vomited. No further hæmorrhage occurred, and there was a favorable recovery.

Dr. S. thought that vomiting, under the circumstances, was favorable to recovery; he believed that it always checked hæmorrhage.

Dr. Fifield also spoke of the beneficial effect of emesis in these cases.

Dr. Wellington asked if it was attended by uterine pain.

Dr. Fifield said that it was.

Nov. 11th, 1871. Dr. Lyman in the chair.

Delivery by the Feet; Death of the Child.—Dr. Ayer reported the case. Foot-presentation. The lower extremities and body were delivered, but the head was delayed forty-five minutes, and the child was dead when fully delivered. Dr. Ayer remarked that this case afforded a severe criticism upon the old teaching that the practitioner should not carry his obstetrical instruments with him; for had he had forceps at hand he could have delivered the head and probably saved the child.

Difficult Labor; Indented Forehead; Death of the Child.—Dr. Abbot reported the case, which he had recently attended. The patient was a healthy, young woman, in labor with her first child. He was called to her in the evening. She had had some slight pain during the day, and had felt motions of the child within twelve hours. At 9, P.M., the os was well dilated and the bag of waters presenting, he ruptured the membranes, and two-thirds of a teacupful of liquor amnii escaped. The pains were not efficient, although the head was in the first position. At 11, P.M., he gave one small dose of ergot, the head being hardly within the brim. At 12, he applied forceps, after giving ether. He could not start the head, and called another gentleman to assist him, who succeeded in effecting delivery. After delivery, an indentation was found in the superior portion of the left frontal bone, extending to within a quarter of an inch of the coronal and sagittal sutures, two inches in length and half an inch deep. The cord was disorganized and brown in color, and at one point reduced to a mere string. There was no pulsation in it at any time after the birth of the child. Dr. A. could not detect any abnormal prominence of the sacrum which could have caused the indentation. The uterus seemed to be flattened laterally previous to delivery; the child was very large, and dead.

In answer to inquiries, Dr. Abbot said that the placenta was healthy in appearance, and that the indentation was not caused by the forceps, being on the opposite side of the forehead to that on which the blade was applied.

Dr. Arnold said that he had seen an indentation of a parietal bone forming quite a deep cavity, which still continues, the child being four or five years old.

Dr. Homans said he had seen one case of such an indentation—the child was dead, after a tedious labor and delivery by forceps; there was apparently an undue prominence of the sacrum promontory or an exostosis.

Dr. Abbot said that similar cases had been reported in an interesting paper by Dr. Capron, of Providence. R. I., printed in the Boston Medical and Surgical Journal, vol. lxxii, p. 437, which was well worthy the perusal of the members.

Dr. Lyman inquired concerning the condition of the integuments covering the indentation in Dr. Abbot's case.

Dr. Abbot replied that they were intact.

Death from Contracted Cord. Dr. Arnold related a case in which there was a contraction of the umbilical cord for the distance of two inches; the child was dead.

Dr. Abbot inquired as to the quantity of liquor amnii.

Dr. Arnold replied that it was very small.

Dr. Abbot thought that death of the child might have resulted from compression of the cord, in consequence of the small amount of this fluid.

Indurated Cervix after Abortion.—Dr. Lyman related the following case.

The patient had been the subject of an abortion. The uterus was two and a half inches in length. The cervix was hard externally and soft internally, and admitted the finger three fourths of an inch.

The special subject of "*The Professional Management of Menstruation,*" assigned for discussion at this meeting, being in order, Dr. Cotting repeated that mothers had applied to him to know what could be done for their daughters who were the subjects of absent or suppressed or irregular menstruation, adding, "You know, doctor, it is the life of the woman." He was accustomed to reply that he did not know any such thing; women live in health both before and after it—that it was something added for a special purpose, and not of *necessity* essential to life or even to health.

Dr. Read said that so far as he could learn, menstruation was essential to reproduction. With this function present and properly performed woman was well; with it imperfect she was not. It was a governing function, and when it was absent it was better to establish or re-establish it, as the case might be. He however did not believe in interference when its absence was productive of no unpleasant symptoms. Such symptoms, occasioned by its absence, were an indication for the adoption of measures for its re-establishment. In regard to Dr. Cotting's assertion that the same remedies were employed for both amenorrhœa and menorrhagia, and consequently that our present knowledge of the therapeutics of these conditions was of little value, Dr. Read remarked that both of these conditions may depend upon the same remote cause, some disturbance of the nervous system perhaps, and the same drug might be of benefit in both. The function of menstruation should be regarded and looked after as the ruling function of woman's life, during its activity.

Dr. Cotting argued that menstruation is not, theoretically, essential even to reproduction, and asked, for example, if the lower animals menstruated.

Dr. Read replied that cows, mares and sows do.

Dr. Cotting denied that there was anything like human menstruation in these animals. Menstruation was not heat, but rather precludes it.

Dr. Wellington read extracts supporting Dr. Read's statement in respect to menstruation in the animals mentioned.

Dr. Ayer was of the opinion that in cases of amenorrhœa remedies should be employed. He also cited the fact of vicarious menstruation as an argument that the function should be restored to its normal state, when absent. Anæmia was frequently a cause—should it not be treated?

Dr. Abbot agreed with Dr. Cotting, that in ordinary cases of irregularity at the commencement of the function interference was unnecessary. In such cases he was seldom consulted, as mothers usually are of the same opinion. It is possible, however, that while the general health does not suffer there may be local maladies more or less dependent upon this condition. He cited the case of a young lady, who was in robust health, so far as her strength and general condition were concerned, although the catamenia were very irregular. She was troubled, however, by a very severe eruption of acne, which greatly disfigured her. The catamenia became regular under the administration of iron, and the acne nearly disappeared; partly, perhaps, from the coincident use of strong alkaline soap. When the amenorrhœa is accompanied by other evidences of depressed vitality, as is sometimes seen from overstudy, overwork, &c., he supposed it was generally admitted that remedial means should be employed.

Dr. Wellington did not interfere in cases of non-appearance unless the general health suffered. In cases in which the function had been established and subsequently disappeared, he thought treatment was indicated. He considered local treatment of little if any value.

Dr. Cotting asked if any gentleman knew of any agent or agents that would, singly or combined, produce real menstruation when it did not appear of itself, or re-produce it when suppressed. Physicians often spoke as if they knew of such, and patients seemed to have the fullest belief in the existence of such agents, which medical men might use in particular cases if so disposed.

Dr. Read said that we should not look for any particular agent to bring on the menses in any given case, but in each case endeavor to ascertain what cause prevents the proper performance of the function, and direct treatment to that. He instanced a case of a young married woman, in whom the menstrual flow got down to the smallest amount of almost colorless serum. On examination, he found flexion of the uterus. Treatment was adopted, and she was now much improved, both in respect to the local lesion, and in her general health, which had been previously much impaired.

Dr. Cotting rejoined, still many go on and treat patients as if they had the means to bring on menstruation in ordinary cases where no such lesion existed, and very much to the detriment of the patient in many instances.

Dr. Read disclaimed being addicted to any such method of treatment. He did not believe in any *specific* for bringing about menstruation, and never adopted any treatment until he had become satisfied as to the cause of the absence of the function.

Dr. Lyman said he was sorry to hear gentlemen confess that they could do so little in cases of disordered menstruation. Did not believe in any drug as a specific, but that by means of rest, opiates, injections of ammonia, sinapisms, dry cupping over sacrum, iron, mineral waters, &c., according to special indications in each case and the condition of the general health, very much could be accomplished. Many patients could be saved from dysmenorrhœa. He thought these cases as amenable to treatment as the generality of cases that physicians are called upon to prescribe for.

Dr. Cotting said he had not been discussing general treatment; he might perhaps admit what had been said on that point, and might perhaps go even farther, and have most girls considered as sick, so far as protective care and treatment is concerned, for two or three days each month on recurrence of menstrual symptoms. They would be better, in the long run, by such procedure; but the main question he had raised had not been, as he thought, as yet satisfactorily answered here or elsewhere.

Selected Papers.

CASE OF PNEUMO-PERICARDIUM.

By G. P. Conn, M.D., Concord.

G. S., age 41, height 5. 8½, weight 180. Nervo-bilious temperament. Died in the New Hampshire State Prison, February 23, 1871, at 1.30, P.M., after ten or twelve hours' illness. *Post mortem* eighteen hours after death. Externally, the body presented nothing unusual, being in a state of perfect preservation; development indicating a strong, healthy organization; no emaciation or any appearance of defective nutrition. Thorax only examined.

On raising the sternum and exposing the cavity of the thorax, the heart appeared to rise above the surrounding tissue. The lungs were uniformly congested, each lobe having the appearance of having been affected at the same time; still there was no part of the lungs but contained sufficient air to crepitate on pressure, neither was there any part in which there was the least trace of an inflammatory action, or that inflammation was about to supervene. The pleura was in a normal condition; no adhesions; every part was perfectly free, and could be turned from side to side as easily as in an ordinary subject when the lungs are in a healthy condition. No effusion in either pleura, but from the bladder-like appearance of the pericardium, it was suspected there might be hydro-pericardium. However, on puncturing that membrane, we were surprised to hear air escaping with an audible hissing sound, and in a moment's time the pericardium assumed its natural relation to the heart itself, there being no effusion or any trace of inflammation to be found.

The accumulation of air was more marked upon the right side, over the base of the right ventricle, than upon the left, and standing very near, as were one or two other gentlemen, when the air escaped, we did not realize any odor.

The valves, endocardium, and the muscular structure of the heart, did not present anything abnormal. I should judge the distention of the pericardium might average some five or six lines, simulating an appearance, when viewed from a short distance, of hypertrophy.

The autopsy was conducted by the prison physician, in the presence of several members of the profession, and it was not considered necessary to examine any of the other viscera, as the indications of disease during life were all confined to the thorax.

I did not see the patient during life, but from the physician and officers of the prison I learned the following history of the case. He had formerly been a man of somewhat intemperate habits, and while under the influence of liquor committed crime, for which he was sent to prison thirteen months previous to his death. He had been afflicted with slight *paralysis agitans* for some years, which was considered to be the effect of his habits, as he was a man of strong muscular development. His conduct while in prison had been unexceptionable, being faithful and trusty, and giving his overseers no trouble, evidently realizing that his habits had been the means of bringing merited punishment, and he was content to make it a means of reformation.

The first that was known of his being ill was about six weeks previous to his death, when, while performing some labor in the presence of the warden, he suddenly stopped, placed his hands on his chest, and for a moment seemed to be in great distress. When questioned about it, said it "was like cramp." A few days after this, he was seized again, and soon began to have these bad turns every day, when the attention of the medical attendant was called to his case, who excused him from duty, ordered rubefacients to be applied externally, some medicine of an anti-spasmodic character to be administered internally, and a light diet enjoined. This was some two or three weeks after the first attack, during which time he had been pursuing his ordinary routine of labor, partaking of his usual rations, asking no favors, nor for once intimating that he was ill.

When excused from labor he was allowed to go at will from his cell to a stove a few feet distant, as he said "he felt cold when he had these spells," as he characterized them, although the temperature of the whole apartment was kept at about 60° day and night. I did not learn that he ever had an attack when the physician was present, but from those who were around him, it seems that the surface was cold, his pulse weak and fluttering, and apparently great distress and oppression in the pericardial region.

During the time he followed the regimen prescribed, he apparently improved, and at 4, P.M., the day before his death, he expressed a desire to the steward to be returned to labor "as he had not had an attack for nearly two days, and he had rather work than sit round with nothing to do," evidently having no fear for himself, and considering himself well otherwise than these sudden attacks of distress. Nothing more is definitely known of his condition until early the next morning; when the warden made his usual rounds, the patient spoke, saying "he had passed a bad night." The warden went into his cell and found him in an alarming condition, and had him removed to the hospital ward, and sent for the medical attendant at once.

The medical attendant informed me that he saw him at an early hour, and found him with a cold surface; pulse about 130, weak and fluttering; respiration labored rather than hurried, perhaps 25 per m.; supported so as to be in a sitting position, and any attempt to assume a recumbent posture caused a violent spasm of cough, accompanied by a profuse, frothy expectoration, streaked with blood. Auscultation did not reveal the condition of the lungs and heart, so as to arrive at any satisfactory diagnosis, the thorax being filled with mucous râles, while the heart, though feeble in its action, seemed to be struggling against some unseen force, which was slowly but surely overpowering its action. Medical aid availed nothing, and he died of exhaustion, as before stated, at 1.30, P.M.

I have not found anyone who has met with the same or a similar case, neither can I find much which has been published to throw any light upon the subject.

Laennec says: "Very frequently, before opening a pericardium partially filled with serum, I have distinctly observed an accumulation of air in the cavity. * * * *

I am inclined to think that I have found air in the pericardium in cases where there was no serum, but I am not quite assured of the correctness of my observation." P. 202. Thus he leaves it to be inferred that the air or gas found in the pericardium was probably the result of decomposition of serum.

Bertin, in an excellent work in its day, on diseases of the chest, remarks: "It is not uncommon to meet with a certain quantity of air in the pericardium, hence we give to this disease the name of pneumo-pericarditis. The quantity varies much. Its chemical properties are, as yet, unknown. It escapes with a slight hissing sound when we cut into the pericardium. Pneumo-pericarditis exists, ordinarily, in connection with hydro-pericarditis." P. 276. From this we may conclude that the author did not feel positive but that the phenomenon was due to *post-mortem* changes.

Dr. S. D. Gross, in his Elements of Pathological Anatomy, states that he has never met with an instance of this kind, but in a chapter on Pneumotosis he briefly points out conditions of the system which he conceives might be the cause of the development, or formation of gas, in the different tissues, organs and cavities of the body, under different circumstances of health, disease and accident. In a letter received a few days since Dr. Gross remarks, "Your case is the more remarkable, as the man had no marked cardiac trouble during the latter part of his illness, and the dissection was made so soon after death. Another circumstance, equally singular, was the absence of inflammatory deposits. Had there been effusions of this kind, the presence of aëriform fluid in the pericardium might readily be explained on the assumption that there had been chemical decomposition going on, probably, in part, at least, prior to dissolution. As it is, the case is a most mysterious one in every respect."

My friend, Dr. Phelps, kindly referred me to the greatest of all authorities in Path. Anat., Rokitansky, Am. edition, p. 114, vol. iv., in which he says: "We have never met with an accumulation of air in the pericardium. Most of the cases recorded leave room for many doubts regarding their existence during life." Dr. Phelps states in his letter that Rokitansky, in his last German edition, as yet untranslated, p. 238, vol. ii., says: "Pneumatosis pericardii belongs, certainly, to the rarest of all phenomena. This is ten years later than the American edition, and seems to be an admission that it may possibly occur.

Boch, in his Path. Anat., p. 607, thus refers to this disease: "The account of collections of air in the pericardium are very unsatisfactory," yet, he says, "in abnormal contents of the pericardium there is found, besides the products of inflammation, other substances, as water, blood and gas."

Jones and Sieveking, page 294, Am. edition of their Path. Anat., devote a section to pneumo-pericardium, from which I will quote a few sentences: First definition, "A condition of the heart rarely found until after death, and termed by Laennec pneumo-pericardium, consists in an effusion of air into the sac;" second, "Laennec states that he was able to diagnosticate its presence during life from the unusually clear sound yielded by percussion in the region of the heart, and by a sound of fluctuation accompanying the movements of the heart and of respiration; third, a case is quoted from the Clinique of M. Bricheteau, "in which a murmur resembling the noise of a water-wheel was heard during life, evidently connected with the alternate movements of the heart." Another case is quoted, from the report of the Pathol. Soc. for 1852 and 1853, by Dr. Chambers, of a young woman in whom the admission of air into the pericardium occurred shortly before death through perforation of the œsophagus; the pericardium was found much distended when the *post-mortem* examination was made, and "it was owing to this circumstance," says the report, "that the fibrinous layer, which had been deposited between the surfaces of the pericardium, had not given rise to any friction sound during life."—*Transactions of the New Hampshire Medical Society.*

Bibliographical Notices.

Otis's Physiology of Syphilitic Infection.

Syphilis, a "zymotic disease of the human organism," comprises, according to Dr. Otis, four stages. Under the secondary stage he includes, among others, "periosteal inflammations and osseous hypertrophy, and inoculability of the secretions of all the foregoing." His fourth stage comprises "lesions of the viscera, with a general vitiation and degradation of the entire economy, under the title of syphilitic cachexia." He next gives a fairly presented *résumé* of the varying theories of distinguished syphilographers, from Pinctor and Grunbeck at the close of the fifteenth century to those of Beale, Chauveau and Salisbury of to-day, and comes most properly to three somewhat negative conclusions:—

"1st. That in regard to *its origin*, the accumulated learning of centuries affords but the most unsatisfactory speculations.

"2d. That nothing is yet positively known of its nature. Accepted as a virus, with a power to contaminate the blood, it is known only by its effects.

"3d. That nothing is yet positively known of the mode by which the human system is infected by it."

Dr. Otis next considers the agents of the absorption of the syphilitic virus, which, according to Lancereaux, are the same as those of other substances, viz., the venous capillaries and the lymphatic vessels, and adds with reason "unless it can be shown that the venous capillaries do not absorb the syphilitic principle or virus *at all*, and that this office is always confined to the lymphatic capillaries, the theory of instant infection must prevail."

He then proceeds to show, adopting the views of Beale "in regard to the nature of the disease-germ of contagious diseases [Disease Germs, their Real Nature, p. 11], viz., that 'it is a molecule of germinal matter, &c.'"; that the lymphatic vessels are the agents of absorption, whether the disease germ enters them as an independent amœboid cell or is picked up and carried along by some nomadic white blood corpuscle. This he does in accordance with the views of Root, Willis and von Recklinhausen, namely, that "there is a constant movement of the fluids bathing the tissues toward the lymphatic canals," by the necessity which exists that the germ should accompany the current of the stream of fluids.

That the germ has no affinity for the contents of the blood capillaries is evident if the author be correct in his idea that the germ is "a living, abnormally active bioplast," requiring unformed material as food, and therefore not capable of being nourished by a pabulum consisting of the formed matter of the tissues and red blood corpuscles.

The local action at the point of inoculation the author regards as follows:—

1st. A coagulation of the superficial tissue fluids. A dilatation of the superficial bloodvessels. A consequent slowing of the circulation. The coincident attraction of a variable number of wandering white blood corpuscles—phenomena associated with any irritation of living tissue.

2d. An entrapment of the syphilitic disease-germ by the wandering white blood corpuscle (through its amœboid movement), and the incorporation of the disease-germ into the substance of the white corpuscle.

3d. An appropriation (as pabulum) by the disease-germ of the substance of the white corpuscle, and the consequent development and multiplication of the disease-germ *in* the white corpuscle.

4th. A consequent necessity of the white corpuscle for an increased supply of pabulum from the tissue fluids, the absorption of which, producing a rapid increase in size and an abnormal tendency to fission or multiplication of the white corpuscles, through whose substance the multiplied disease-germs are now disseminated.

5th. Through the multiplication of the white corpuscle thus impregnated by the syphilitic disease-germs, the spread of the syphilitic influence at the point of inoculation, and from thence into the adjacent natural channels of the white corpuscles, viz., the *lymphatic canals*, through which, by aid of the lymphatic current, they are carried along until arrested in the substance of the nearest lymphatic gland.

While, however, certain of the wandering white corpuscles, incorporated with the syphilitic disease-germs, are stimulated to abnormal proliferation, and go on to spread their influence beyond the sphere of this immediate action, certain others, whose predestined office is that of connective tissue cells, become arrested in the coagulated albuminous medium at the point of inoculation, become fixed and develop into connective tissue fibrillæ, after the manner described by Billroth [Surg. Pathol., Am. Ed., 1871, p. 98] of the formation of normal cicatricial tissue, between which and the induration associated with and considered peculiar to the primary syphilitic lesion, there appears to be but the difference of exaggerated formative power."

The Period of Incubation, Dr. Otis thinks, is not only explicable in accordance with, but confirmatory of, his views. Thus, in Dr. Hammond's case, with an incubation of thirty-six hours, only, the lesion was described as at the frænum, and the same in two cases of Dr. Taylor, in one of which the induration was developed in four days, and in the other within a week, and "it is just at this point that the superficial lymphatics of the glans penis approach nearest to the surface, rising in this especial locality, in some instances, according to Balaeiff, to a point just underneath the epithelium."

The incubative period of syphilis is then the period required for the disease germ to traverse the distance from the point of inoculation to the interior of a lymphatic vessel, and up to this moment of entrance into a lymphatic channel, syphilis is a local disease ; nay, more, instead of infecting the system at large, even at this time, it passes first into the parenchyma of the lymphatic glands and is there retained for a period corresponding to the secondary incubation, preceding the manifestation of general constitutional symptoms.

The author concludes by attributing many of the later manifestations of syphilis to causes dependent upon interference with the lymphatic circulation, and claims "that it is the germinal element of the blood and tissues alone that is primarily affected in syphilitic disease; that it is through the lymphatic system alone that the syphilitic influence is propagated to parts remote from the point of inoculation ; and, finally, that it is to deposits of fibrin, organized through the syphilitic influence in and around the lymph-vessels and lymph-sacs in the earlier stages of the disease, and its subsequent contraction that the lymphatic obstructions resulting in various external and internal lesions in the later stages of the disease are chiefly due."

Dr. Otis cites, in a note appended to his paper, the ostensible corroboration of his views contained in the recently published, but as yet unproved, results of the investigations of the blood of syphilitic patients of Dr. Lostorfer, of Vienna, which results are denied by Wedl, Neumann, Gruber, *et al.* E. W.

Medical and Surgical Journal.

Boston: Thursday, May 30, 1872.

POPLITEAL ANEURISM CURED BY FLEXION.

In the *British Medical Journal* for April 6th, Mr. T. Holmes reports a case of complete cure of a popliteal aneurism by means of flexion of the knee. The patient entered hospital with a pulsating tumor of the size of an English walnut, in the upper and outer part of the popliteal space. There was a very loud *bruit*. Pressure on the femoral artery caused complete cessation of the pulsation. The treatment by forced and continued flexion of the leg was attempted, the limb being kept in position by bandages. This restraint, however, became intolerable to the patient, and he was directed to practise voluntary flexion, maintaining the position as long and as completely as possible. After forty-eight hours of this intermittent flexion, the tumor had ceased to pulsate and there was no *bruit*. The collateral circulation through the articular branches was fully established, and the patient was shortly discharged, well.

Mr. Holmes speaks highly of this method of voluntary flexion as being less painful and less irksome than enforced restraint, and as being hardly less effectual. The treatment is adapted to recent aneurisms, and should be continued at intervals until the anastomotic circulation is complete ; in other words, for some time after the aneurism itself appears cured.

Medical and Surgical History of the War.—From our correspondent in Washington, we learn that the first part, of 1800 pages, of the Medical and Surgical History of the War—compiled under direction of the Surgeon General, U. S. Army—has been submitted to the Committee on Printing of the Senate, and that it will soon be prepared for distribution.

This portion of the work contains the completed Medical Statistics (726 pages) of sickness, mortality, and discharge from service for disability, during the war, with 365 pages of appended documents, consisting of extracts from the reports of Medical Directors of Armies in the field and other medical reports of historical value and interest; a chronological table of all battles and engagements of the war of which any report or record has been made, and 500 pages of surgical matter, comprising all wounds and injuries of the head, neck and chest, with a full discussion of each class. The material and data remaining on hand, much of which is already classified and tabulated for the completion of this work, will, with the utmost possible condensation, form two more parts similar to this, each containing an equal amount of medical and surgical matter. The succeeding medical portion will describe, discuss and illustrate, by engravings and chromos, the symptoms, pathology and treatment of those diseases which were the chief cause of the sickness and mortality recorded in the first portion, such as camp fever, camp diarrhœa and dysentery, pneumonia, camp measles, smallpox and the like, with histories of cases, records of autopsies and special reports. The surgical portion will comprise wounds and injuries of the abdomen and extremities, surgical operations and their results, with a vast amount of information upon such surgical diseases as pyæmia, osteo-myelitis, hospital gangrene, tetanus, &c., with the illustrations which the importance of these subjects demands. Of surgical operations, records have been kept of 30,000 major amputations, 5,000 excisions of large joints,, and 800 ligatures of large arteries. A report upon hospital construction and administration, modes of transport of the sick and wounded and the distribution of medical supplies during the war, will complete the work.

Bullet Wound of the Bladder, with Recovery.—In the *Medical Press and Circular* for Feb. 28th ult., is recorded a case of perforating wound of the bladder which presents certain elements of interest. The patient was a German soldier. He was wounded in battle, three rifle-balls entering the body from behind, and emerging in front just over Poupart's ligament in such a direction that the bladder must have been in the direct line of their passage. Urine flowed copiously from the wounds of exit. The prognosis was bad, and little was done for the patient. After a time, however, the urine, which had been discharged previously through the wounds, began to pass *per urethram;* the openings in the groin healed, and perfect recovery appeared to have been realized.

Some time subsequently, difficulty in micturition was experienced. On search being made with a sound, a hard body was discovered far back in the urethra. It was carefully grasped with a fine forceps and extracted, proving, on examination, to be a splinter of bone (probably from the ilium), about half an inch long and at one part about a quarter of an inch broad. Four smaller spicula were subsequently removed from the urethra. After a while, the relief which had followed these operations gave place to symptoms of stone, and, on sounding, a calculus of tolerably large size was discovered. It was removed by lithotomy. The subsequent treatment of the case embraced one measure rarely, if ever, followed in this country in such instances. The wound in the perinæum was allowed to close completely, no catheter being used for the drainage of urine. The legs of the patient were brought together at once, and that position was maintained. Whenever desire for micturition was felt, the man was lifted into a warm bath (the thighs being still approximated and flexed), and the urine passed through the opening under water; by this method air was excluded from the wound, and the urine, diluted by the warm water, was deprived in great measure of its irritating properties. A pledget of wet lint covered the cut in the perinæum in the intervals. In a few days the urine passed normally by the urethra, and after a brief interval the patient was discharged, well.

Blisters in Pneumonia —Dr. C. J. B. Williams, the distinguished English authority, makes use of the following language in speaking of the treatment of pneumonia :—

"My experience has taught me to put great faith in large blisters, both in asthenic pneumonia and in bronchitis, and I am confident that I have seen many lives saved by their means. Instead of being lowering, they give a salutary excitement to the circulation, and the copious serous discharge which they produce from the skin tends to relieve the congested lung without wasting the red blood that is so needed to sustain the functions. Small blisters tease as much as large ones, and are far inferior in the relief they afford."

Puncturing the Intestine in cases of strangulated hernia is strongly recommended by Mr. Bryant, surgeon to Guy's Hospital. In a clinical lecture, reported in the *Medical Times and Gazette*, he says that he believes it to be scientifically correct to evacuate the distended and progressively distending knuckle of intestine which has escaped outside the tight and scarcely elastic ring and which, as the strangulation developes, must sooner or later give way by sloughing. He cites one case in his own practice which, he believes, strongly corroborates the theoretical advantages of the operation, and confirms the practical benefits resulting in the experiences of others when tapping of the hernia has been performed before using the knife. He concludes his observations as follows:—

"Considering, then, that, with such examples as we have, tapping is not attended with much danger, surely, we are justified in having resort to it before any more serious operative interference, with every prospect of doing good."

On the use of Carbonate of Lithia in Gout and Uric Acid Gravel. By Prof. Ditterich, of Munich.—Carbonate of lithia, according to Prof. Ditterich, must always be considered as the most powerful remedy in gout and the morbid conditions depending upon excess of uric acid, and the salt has fallen somewhat into disrepute of late only in consequence of being unsuitably administered. The doses of from five to ten grains, recommended by Aschenbrenner, generally produce very unpleasant symptoms, as dyspepsia, catarrh of the stomach and bowels, with vomiting, &c., which require the discontinuance of the remedy.

These doses, according to Prof. Ditterich, are much too large to act beneficially, and the single dose should never exceed twelve centigrammes (a centigramme is the hundredth part of a gramme, which is about fifteen grains), and in twenty-four hours not more than a gramme should be given altogether. The next question to be asked in the treatment of gout is whether the case presents itself in the acute or chronic form, for in the former lithia is unsuitable, but in the latter the carbonate may be given in the proportion of half a gramme (about seven and a half grains) in a hundred and fifty grammes of distilled water, one or two teaspoonfuls to be taken every two hours. Thus administered the lithia causes no inconvenience, and generally affords relief in from eight to fifteen days, during which the painful parts are covered with socks or linen coverings. According to Prof. Ditterich, the gouty swellings which have become hardened are not affected by the lithia circulating in the blood until the adjacent parts of the limb have been brought into a state of congestion by stimulating embrocations.—*London Practitioner*, from *Jahrbücher der Gesammten Medicin* and *Med.-Chir. Review*.

Chloroform-deaths.—We have to-day to record two chloroform-deaths—the fourth and fifth deaths during the administration of anæsthetics recorded in our pages during the last few weeks. Two of them, however, were from the dropping of foreign bodies into the air-passages: in the one case, a plate supporting artificial teeth; and in another, part of a gag, which had broken in the mouth. One of the fresh cases which we have to record to-day, occurred recently at the Royal Eye Hospital, Manchester, and the notes of it are communicated at page 472. The other occurred on Wednesday, at St. Bartholomew's Hospital. Chloroform was, we understand, administered by one of the house-surgeons, in the usual manner, to a young man having a phagedænic sore. After a very few minutes, before the patient was fully under the influence of the vapor, the pulse ceased, and all efforts, including galvanism and artificial respiration, persisted in for an hour by the two house-surgeons, proved unavailing to restore life.—*Brit. Med. Jour.*

The Uvula.—Dr. Noble Smith condemns, in the *British Medical Journal*, the practice of snipping the uvula, and advocates its complete removal in cases where any operative procedure is called for. He relates two cases simulating consumption, which were at once cured by the removal of the elongated uvula; and says that, in merely snipping the organ grows again, and no good results. On the other hand, Sir G. D. Gibb argues in the *Lancet*, that the uvula has important functions in deglutition and vocalization, and that its true muscular end does not often become elongated, but only the membrane, and perhaps adipose tissue; consequently, that snipping this part and leaving the muscular fibres intact is quite sufficient, and that no inconvenience arises from this practice.—*The Doctor*.

Iodine in Vomiting.—Dr. Caspari, of Horn, has for the last twenty-five years successfully prescribed the tincture of iodine in cases of obstinate vomiting, where nothing else relieved the patient.—*Ibid.*

Medical Miscellany.

The annual meeting of the Norfolk District Medical Society was held at Hyde Park, on the 8th inst., at which the following board of officers was elected for the ensuing year:—

President, Dr. Edward Jarvis; *Vice-President*, Dr. Eben P. Burgess; *Secretary*, Dr. A. H. Nichols; *Treasurer*, Dr. J. S. Greene; *Librarian*, Dr. D. S. Fogg; *Commissioner on Trials*, Dr. S. Salisbury; *Censors*, Drs. J. S. Greene, Joel Seaverns, C. C. Tower, C. Ellery Stedman and R. T. Edes; *Councillors*, Drs. Robert Amory, Geo. J. Arnold, B. E. Cotting, W. C. B. Fifield, F. F. Forsaith, C. C. Holmes, Edward Jarvis, J. Stedman, J. W. Chase, S. E. Stone and Heny Blanchard; *Committee of Supervision*, Drs. W. S. Everett and B. Cushing.

Messrs. Editors,—Mr. Soelberg Wells requests me to state that the International Ophthalmological Congress to be held this year in London, takes place August 1st, 2d and 3d, at the Royal College of Physicians, Pall Mall.

Notices of papers to be read should be sent to the Honorary Secretary, Mr. Wells, 16 Saville Row, London, W., as soon as possible.

Hasket Derby.

Poisoning by Vanilla-ices.—The German medical journals call attention to the circumstance that several cases of poisoning by vanilla-ices have in late years occurred in Paris, Altona, Munich, Vienna, and other places. Maurer has recently related an instance in which, after the use of these ices, a large family suffered from the symptoms described as having been present in the other cases, viz., frequent vomiting, diarrhœa, assuming in some of the patients a choleriform character. All the patients recovered. What the nature of the poison is, has not yet been ascertained. In two observations on the remaining portions of the poisonous ices, traces of lead, iron and tin were present; but the combination of lactic acid with oxide of tin has been ascertained not to be poisonous. Schroff believes that the poison is produced by the use of cashew-nut oil to besmear the vanilla-pods.—*Med. and Surg. Reporter.*

The Largest Medical Monthly Editorial Staff in America or elsewhere.—Our friends, Drs. Powell and Goldsmith, of the *Georgia Medical Companion*, have recently associated with them in their journal sixty-three additional physicians, making a grand total of *sixty-five* editors. Georgia has been called the "Empire State of the South;" at this rate, "the whole boundless continent"—of doctors will soon belong to her *Medical Companion.—American Practitioner.*

Absence of a Lung.—Dr. W. Dickey communicates to the *Cincinnati Lancet and Observer* an extremely interesting history of a case which had been under his care, and concludes by giving the following account of the autopsy, made twelve hours after death. The left lung was found studded with tubercles, and was somewhat larger than usual, but consisted of two lobes. On the right side there was no lung at all, not even a rudiment at the bifurcation. No lung had ever existed. Heart in the mediastinal space, but in the right side, corresponding to a natural situation in the left. Its walls were thickened, and cavities somewhat enlarged.—*Med. Record.*

Hydrochlorate of Narceine for Hypodermic Injections.—Dr. Petrini, in the *Bulletin de Thérap.*, advocates this salt as superior to sulphate of atropine or muriate of morphia. In very small doses, five milligr. to one centigr., its calmative power is manifest. It is superior in its power to control sickness to salts of morphia. When all preparations of opium or morphia fail as hypnotics, a small dose of the salt of narceine will succeed. In the smallest doses its effects are also to slightly raise the temperature, as well as the frequency of both the pulse and respiration, but at the same time to reduce arterial tension.—*The Doctor.*

Pamphlets Received.—Sixteenth Annual Report upon the Births, Marriages and Deaths in the City of Providence, R. I., for the year 1870. By Edwin M. Snow, M.D., Superintendent of Health and City Registrar. Pp. 64.—Amnesic and Ataxic Aphasia, with Agraphia and temporary Right Hemiplegia, the result of Embolism of the left Middle Cerebral Artery. By T. M. B. Cross, M.D., New York. Pp. 13.—Report to the Surgeon-General of the United States Army on the Minute Anatomy of two Cases of Cancer. By Assist. Surg. J. J. Woodward, U. S. Army. With two Photographic Plates. Pp. 10, 4to.

Deaths in seventeen Cities and Towns of Massachusetts, for the week ending May 25, 1872.

Cities and Towns.	*No. of Deaths.*
Boston	129
Charlestown	9
Worcester	10
Lowell	24
Milford	3
Chelsea	11
Cambridge	17
Salem	9
Lawrence	6
Springfield	2
Lynn	11
Fitchburg	6
Taunton	6
Newburyport	1
Somerville	7
Fall River	9
Haverhill	11
	271

Prevalent Diseases.

Consumption	57
Pneumonia	31
Scarlet fever	12
Typhoid Fever	11
Croup and Diphtheria	8

Boston reports three deaths from smallpox.

George Derby, M.D.,
Secretary of State Board of Health.

Deaths in Boston for the week ending Saturday, May 25th, 129. Males, 65; females, 65. Accident, 3—abscess, 2—apoplexy, 3—asthma, 1—aneurism, 1—inflammation of the bowels, 2—disease of the bowels, 1—bronchitis, 8—inflammation of the brain, 1—disease of the brain, 7—burned, 1—cancer, 5—cerebro-spinal meningitis, 4—consumption, 21—convulsions, 4—croup, 2—debility, 5—dropsy, 1—dropsy of brain, 2—drowned, 1—enlarged prostate, 1—erysipelas, 1—scarlet fever, 3—typhoid fever, 6—gangrene, 1—disease of the heart, 3—indigestion, 1—inflammation of leg, 1—intemperance, 1—disease of the kidneys, 1—disease of the liver, 2—congestion of the lungs, 8—inflammation of the lungs, 9—marasmus, 3—old age, 1—paralysis, 1—premature birth, 1—peritonitis, 1—puerperal disease, 2—pyæmia, 2—rheumatism, 1—scalded, 1—smallpox, 3—disease of the stomach, 1—whooping cough, 1—unknown, 2.

Under 5 years of age, 49—between 5 and 20 years, 20—between 20 and 40 years, 23—between 40 and 60 years, 19—above 60 years, 18. Born in the United States, 97—Ireland, 26—other places, 6.

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Original Communications.

CLINICAL OBSERVATIONS ON CONTAGIOUS IMPETIGO.

Remarks before the New York Dermatological Society, September, 1871, by R. W. Taylor, M.D., New York, Surgeon to the New York Dispensary, Department of Venereal and Skin Diseases.

Mr. President and Gentlemen,—I have been very much interested during the summer in the observation of a series of cases which presented peculiar lesions, and which, I am convinced, belong to that variety of pustular diseases which that accurate observer and accomplished dermatologist, Dr. Tilbury Fox, has named *impetigo contagiosa.* I had read the description of this disease by Dr. Fox, and I was anxious to have the opportunity of observing some cases of it. You are undoubtedly aware that the opinions of prominent dermatologists are not definitely settled as to the existence of this disease as one *sui generis*, and therefore any observations upon the subject possess a certain amount of interest. I think that a study of the various cases which I have seen will fully show the nature and features of the disease.

A woman brought two of her children to the College clinic in July of this year. She said that her oldest daughter, who was 4 years of age, had contracted an eruption from a child at school, but that the rash was on the face of her child while that on the other child was on the hands. Upon examination, I found several patches of erythematous integument around the mouth and upon the child's chin. These patches were of different shapes and sizes; some were round and others irregular and gyrate, as if formed by the fusion of several round patches, and they varied in size from two lines to an inch in diameter. Besides these erythematous patches, there were some peculiar yellow-colored crusts, which were elevated above the integument, and appeared, as described by Fox, as if "stuck on." Some of them adhered very closely, while others had begun to separate at their margin and could be quite easily detached, and under them was seen the erythema above described. These crusts were of a light straw-color, and of the thickness of blotting paper; were somewhat laminated in appearance, and seemed composed of epidermis and dried pus. The more recent ones were slightly darker and less dry and adhered closely. These crusts differed in color and consistence from those of eczema. Upon this child these were the only conditions of the lesion to be observed, consequently its initial stage was wanting. Now, in order to prove that the disease is one *sui generis*, I think it is well to study each of its stages carefully, and I think there are certain features in its erythematous or declining stage, which I have just described, which clearly indicate that it is not an eczema. These erythematous spots, when first observed after the fall of the crusts, presented a bright-red color, there was a very slight desquamating fringe around them, but upon their surface there was no tendency to desquamation, nor was there any punctate redness; in fact, the peculiar appearance of an immature and tender epidermis as seen after eczema was not observed here, but there was a new epidermis of considerable solidity, with no subjacent infiltration whatever. This erythema rapidly paled, becoming at first more dusky, and when it had disappeared there was no trace of previous inflammation. This eruption had begun about the middle of June, and about the first of July the mother noticed it upon the younger daughter, who was four months old. In the older child there was no perceptible febrile movement either before or during the evolution of the rash; but the younger child was noticed to have a well-marked fever, which came on three days before the rash appeared and ceased on the day following its evolution. Now, upon this second child I could study the initial stage of the lesion, as well as its later stages. The mouth was surrounded by crusts, which only differed from those of the first case in the fact that they had not gone on to such thorough desiccation; but on the shoulders I could observe large and small vesicles, which exactly corresponded with crusts upon the under surface of the jaw, and I think were due to contagion from their secretion. The child's neck was fat and chubby, and its chin nearly rested upon the shoulders, hence the facility to contagion. Now the appearance of these vesicles was very characteristic. Their enveloping capsule of epidermis was very thin, which rendered it easy to see that their contents were sero-purulent, as they were of a milky rather than a yellow color, hence I think that the serous element predominated over the corpuscular element; in fact, the fluid seemed to be one stage further advanced in point of its corpuscular character than the recent serum of pemphigus, and not so far advanced as the pus of eczema impetiginodes. The shape of the vesicles was distinctly acuminate, and they were seated upon an erythematous base, which was not at all elevated. At their commencement, they were of about the size of a small miliary papule, and they showed no tendency to umbilication. Their course, as seen in this and other cases, seemed to be as follows: the vesicle enlarges at its periphery, but does not become elevated in the manner that a pemphigoidal bulla does; on the contrary, it gradually flattens itself out, becoming, in some instances, decidedly umbilicated, and at its maturity, when it may be of a diameter of from less than one line to an inch, and when many may have coalesced forming gyrate patches, it consists of a capsule of epidermis enclosing a sero-purulent fluid, which, in the process of maturation of the vesicle, becomes more corpuscular in character and consequently more yellow and dark. The further process in the formation of the crust consists in the gradual desiccation of the fluid until it assumes a considerable consistency, and then is no longer capable of separation from its epidermal envelope, but constitutes the peculiar yellow or straw-colored laminated crusts, seated above the level of the integument, and appearing as if stuck on. This process takes about six days. There are other changes in the development of this vesicle which are readily observed and which, I think, are of considerable clinical importance. I just now stated that there was an erythema surrounding each vesicle. This is usually of a line or less in extent around the whole vesicle. Now, then, as the vesicle enlarges circumferentially, this erythema seems to disappear until, finally, at the complete development of the vesicle, there is scarcely any erythema to be observed, showing, I think, that the processes are distinctly limited, as a rule, in their extent. Now, as I said before, there is no resemblance, whatever, in this enlarged vesicle to the appearance of a bulla; the nearest simile with which I can compare it is a typical vaccinial vesicle, or, again, to that rare form of herpes described by the French as *hydroa bulleaux.* Its elevation is never great, generally about one-third or one-quarter of a line, and it is interesting to observe how rapidly this expanded vesicle developes into a typical crust. The umbilication is not absolutely constant, nor is it so well marked as in the vaccinial vesicle; this may be accounted for, however, by the fact that it is less elevated than the latter. This, I think, gives a clear clinical history of this affection, and I think that we shall see that it has features peculiar to it as well as a demonstrable anatomical lesion, which differs in its course from that of similar lesions in other diseases. I might add in this connection that the mother had a similar vesicle upon one phalanx of a finger, and that it resembled a burn very closely and ran the same course as did the other vesicles, except that in this instance there was rather more erythema around it than is observed where the vesicles are situated elsewhere upon the body. So that while I think that usually the circumferential erythema declines to a great extent in some cases, and that this feature is of diagnostic importance, it may continue, in some cases, to surround the crust. I shall speak on this point a little further on. Besides the mother, a third child was similarly attacked and the lesion ran a similar course. Now in the observation of two other series of cases I saw that there were accidental complications which may arise in the course of the disease. I saw a child upon whose forearm these typical crusts were seen quite copiously distributed over its outer and inner aspect, and between them there was considerable hyperæmia, with some œdema. As I was then familiar with the disease, I at once saw that it was not an impetiginous eczema, but the fact struck me very forcibly that it would have, under other circumstances, escaped recognition, and have been classed as an eczema impetiginodes. Now I think that it will not be a waste of time to describe the appearances presented by this case, as they are somewhat unusual to the course of the disease. The crusts were, as I have said, quite copiously distributed, and in all stages of development, some presenting the appearance of an expanded vesicle, the contents of which were becoming inspissated, others of the typical straw color and stuck-on appearance, and more or less adherent, and when elevated by the finger-nail, presented the erythematous surface already described. Between these crusts was a slightly œdematous hyperæmic integument. Upon the margin of this hyperæmic patch the typical vesicles were to be observed. Now the involution of this rash showed very plainly that it was not an eczema, because it took place as follows: The erythema between the crusts rapidly disappeared when the crusts had become dry and fell off, and when the crusts had fallen was no longer noticeable, and was, in fact, a perfectly sound integument. But the erythematous surfaces upon which the crusts had been situated remained over a week and disappeared gradually as in the other cases. So I think that, upon some integuments, a hyperæmia of considerable degree may be produced, and is, perhaps, accounted for by the peculiar irritability of the integument of the patient. I have observed this, also, upon the face of another child, and I think it is a fact which it is important to know. Then, again, in another case, I saw that a typical acute eczema was induced, and that by it the features of impetigo contagiosa were so thoroughly marked that I should not have recognized it had not I seen its development; but on looking at the abdomen and the legs, I saw the typical new vesicles appearing, and this settled the diagnosis. Then, again, when this lesion is developed in the hairy scalp, the crusts are not by any means typical, but resemble very much those of eczema impetiginodes, and would certainly pass for those of that disease were not the diagnostic features of contagious impetigo seen elsewhere upon the body.

Then, again, there is another feature which struck me as being unusual in this disease, and that is a slight ulceration under the crusts. You will remember that I said that in the first cases when the crusts were elevated a bright shining integument was seen; but in two cases, I observed that when I elevated the crusts I exposed an epidermis covered with a light-colored viscid secretion. This, I suppose, is also due to the greater susceptibility of the integument to the irritant action of the disease.

From what I have seen of this disease, I am inclined to think that itching is not a prominent feature of it, as I saw very little of the results of scratching, which would certainly be observed if the rash itched. But in one case, it having occurred around the mouth, it did itch slightly, and then, in consequence of scratching, the features of the disease were obliterated. I am convinced that it is an inflammation of the superficial portions of the derma, for after its retrocession it seems that only a few layers of the epidermis have been thrown off, and that reparative action is rapidly established. Then, again, there usually seems to be no tendency of the patches to ulcerate either in extent or depth, nor is there a tendency to the production of large quantities of pus. In fact, it strikes me as being a skin disease, self-limited in its duration, leaving the integument in a healthy state, without any thickening, hyperæmia or desquamation. As regards its duration, I think that an average may be stated at from ten to fourteen days before all traces have disappeared. In its evolution it may appear in several successive crops of greater or less abundance, and may thus occupy a longer period of time, but we shall see that remedies have a decided effect upon its duration. It seems to be developed on all parts of the body, upon the face more particularly, and also on the scalp and upon the posterior aspect of the neck; it is most sparsely distributed upon the trunk, and is about equally distributed upon the legs and arms. I have not seen it, as stated by Fox, situated around the vaccination cicatrix. I am unable to state positively in regard to the more or less constant occurrence of a prodromal fever, but from the cases which I have seen, in all about twelve, I think that the fever is greatest in quite young children and becomes less severe in those older. I have no doubt, also, that the extent of the rash has a qualifying influence upon its intensity.

Now, then, we come to the important question of the contagiousness of this rash. The clinical facts observed in my cases certainly favored the view of a contagious element, and such was the opinion of the mothers of the children. It certainly is singular that the same rash appeared in one child after another, and in each ran a similar course. Now, then, to satisfy myself as much as possible, I scarified very slightly and without producing blood the integument upon the arm of a young physician, and laid upon it a portion of one of these crusts slightly moistened, and retained it there by plaster. Very soon an itching was noticed, an inflammatory action was set up and a crust similar to the other crusts was formed, and when it fell off the peculiar erythematous surface remained. I am not absolutely positive, though I lean to the opinion of its contagious character, and I have been struck with the features in which it resembled the exanthemata, namely, in the critical fever and definite period of duration. My friend Dr. F. P. Foster, who saw some of the cases, suggested to me that perhaps it was a modified varicella.

The clinical description of this disease seems as follows: isolated vesicles sparsely scattered appear upon the face, head, arms, body and legs; they are at first surrounded by slight erythema, which, when they become enlarged and flat, disappears. This large, flat vesicle soon becomes a thin, yellow-colored, elevated crust, which may remain of its original size; or if perchance several vesicles are developed close together may coalesce and form a patch. In the course of a few days the crusts dry and fall off, and then we have the typical erythematous surface. The exceptions to this course have been alluded to above. The disease may manifest itself by one crop of vesicles or by successive crops, each crop lasting, in an uncomplicated case, about ten or twelve days. It occurs mostly among the poorer classes; and of the cases seen by me some were dirty and ill cared for, others were scrupulously clean. The diagnostic features are—the *isolation of the vesicles, their peculiar course, the appearance of the crusts, the erythematous surface and the limited duration of the whole eruption.*

The diseases with which the one under consideration might be confounded are—eczema impetiginodes, scabies in its pustular form, pemphigus and varicella. I have already called attention to the differences between it and eczema. As to scabies, it is so rarely wholly pustular, it has its well-marked sites of election, and generally is attended with papules and very often with the diagnostic acarian furrow and its peculiar itching, that I think no one can possibly confound the two diseases. In pemphigus the bullæ are prominent and the initial lesion is never by a vesiculo-pustule, and its contents, at least early in its history, are not so purulent in character, and the crusts are wholly different. In varicella the pustules rapidly desiccate and show no tendency to enlarge and cover so great an area as the crusts of impetigo contagiosa usually do; besides this, the crusts of varicella are more conical and of a dark color, and under them we find more loss of tissue. Thus, gentlemen, I think we are warranted in accepting this disease, as claimed by Dr. Fox, as one *sui generis*, and if we are not willing to wholly acquiesce to its truly contagious character, we must admit that it has its peculiar lesion which runs a peculiar course.

As to treatment, in the cases in which I observed a febrile movement I, from routine, gave quinine, and I think it did some good; but I am certain that topical treatment aborted the development of the vesicles. When I prescribed for the first case, I could not recall to mind the ointment so strongly recommended by Dr. Fox, so I ordered the application of benzoated zinc ointment, and it answered my purpose admirably. It caused the crusts to fall rapidly and the erythema to disappear likewise, and when applied to vesicles just commencing, and to others more fully developed, it caused them to rapidly wither, and this is certainly a very great desideratum, as it relieves the patient and renders others less liable to contagion; for although we have suggested that perhaps there was an exanthematic element in the case, under which circumstance contagion would be only an epiphenomenon, we certainly must admit that the pus of this disease, when planted upon a healthy integument, produces similar changes to those produced upon the integument of the person who furnished it.*

New York, May 15, 1872.

A CASE OF RECURRENT VARIOLA AFTER A SHORT INTERVAL.

By M. E. Webb, M.D., Boston.

W. H. P., of East Boston, aged 7 months, was vaccinated when 6 months old, but the operation was unsuccessful. On Tuesday, the 12th of March, the child was taken sick, becoming very fretful and presenting some febrile symptoms. A female physician was in attendance, who treated the child for a common cold. On Thursday following, an eruption appeared, which was pronounced chickenpox.

Dr. Crane, of East Boston, saw the case on Friday for the first time, and pronounced the disease variola discreta. He reported it as such to the Board of Health, and Dr. S. A. Green, City Physician, saw it on the

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* Since writing the above, I find that Dr. Moritz Kohn, of Vienna, admits the existence of the disease, and that he states that he has discovered a parasite in it. I carefully examined the recent pus from a pustule of one of my cases as well as a small portion of dried crusts, but was unable, even with the aid of high powers, to find any appearance of a fungus. The whole field was occupied by pus corpuscles, granular *débris* and epithelial scales in various stages of development.
R. W. T.

16th, and confirmed the diagnosis. This child undoubtedly received the contagion from its sister, 3 years of age, who had been attacked twelve days previously. There had also been several cases of smallpox in the immediate vicinity. The diagnosis was still more fully substantiated by the fact that a boarder in the house became infected some twelve days after, and died of the disease.

The disease in the case of the child went through a regular course, the only peculiarity observed being that the crusts fell off early, leaving several well-marked and characteristic scars in various parts of the body.

The child recovered its health perfectly, and continued well until Friday, the 12th of April, when it began to be troublesome, as before. Presently vomiting began, which continued through the day and part of the night. On Saturday an eruption appeared, first on the face and gradually extending over the body and extremities. Dr. Crane saw the case the second time and pronounced the disease variola, and so reported it.

Through the kindness of Dr. Green, I visited the patient with him on the 16th. At that time the child was thickly covered with an undoubted variolous eruption of the confluent form. The old cicatrices, plainly distinguishable, were thickly surrounded by vesicles; and some of the latter even pushed up through the indurated cuticle of the scars themselves. There were three scars upon the face and one upon the left leg, all very prominent, and presenting the appearances above alluded to, the eruption being thicker around them than on other parts of the body.

The child, accompanied by its mother, was admitted to the Smallpox Hospital the same day, and an unfavorable prognosis given.

The disease ran its regular course. The eruption soon became confluent, and purpuric spots appeared on all parts of the body. On the 18th it refused to nurse, and died on the morning of the 20th, on the eighth day of the disease, during the secondary fever.

Dr. Green informs me that he has seen, the present year, seven cases, of which he has kindly shown me four, which have had variola the second time. They all presented marks of the second attack, but in all from fifteen to forty years had elapsed between the first and second infection.

The element which makes this case the more interesting is the remarkable susceptibility to variolous poison in a child previously healthy and well nourished; that within the short space of five weeks it passed through one attack of variola, recovered, became infected the second time, enjoying good health during the period of incubation; and was again seized with the disease of a severer form, ending in death at the third stage.

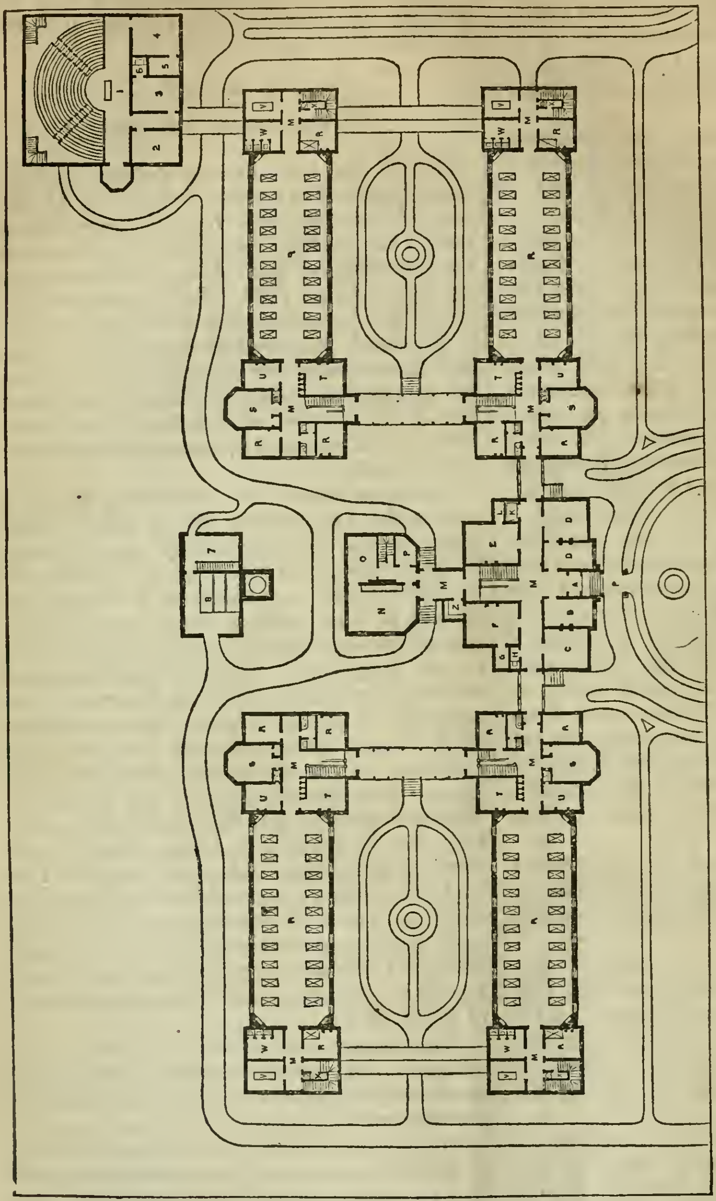
MAINE GENERAL HOSPITAL.

Great as had been the recognized need for many years of a general hospital in Maine, the subject was never brought prominently before the medical profession until the annual meeting of the Maine Medical Association in June, 1867. In his inaugural address, the President, Dr. S. H. Tewksbury, of Portland, proposed that immediate steps be taken toward the establishment of such an institution, and a committee, of which Dr. J. T. Gilman, of Portland, was chairman, was appointed to take the whole matter in charge

The next winter, the committee memorialized the Legislature for an act of incorporation and for a pecuniary appropriation in furtherance of the object. Financial considerations prevented a favorable response to the petition for money; but an act of incorporation passed both branches of the Legislature without opposition and received the approval of the Governor. As amended in 1870, it provides, in addition to the usual terms of such acts, that the Governor of the State, the President of the Senate and the Speaker of the House of Representatives, for the time being, shall be a Board of Visitors, whose duty it is to see that the design of the institution is carried into effect; also that the executive affairs and general management of the hospital shall be under the direction of a Board of nine Directors, six of whom are chosen by the Corporation, and three by the Board of Visitors.

The charter was accepted by the Corporation in the autumn of 1869, a temporary organization was effected and associate corporators were chosen.

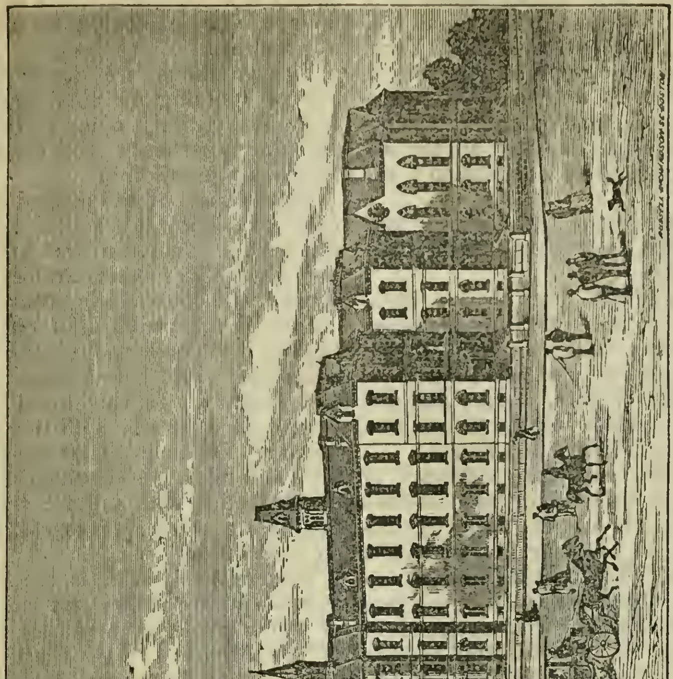
In response to a petition signed by more than two thousand of the most prominent men in various parts of the State, the Legislature, at its session in 1870, passed a resolve by the provisions of which the lot on Bramhall's Hill, Portland, the site of the State Arsenal, was ceded to the hospital, with the condition that the grant should not take place until private subscriptions to the amount of $20,000 were raised. It was also provided that the State should give the hospital $10,000 when $30,000 had been expended in the construction of the buildings; and $10,000 more when $50,000 in all had been expended.



REFERENCES.

A. Vestibule.
B. Superintendent's room.
C. Parlor.
D. Physician's room.
E. Dispensary.
F. Dining room.
G. China closet.
H. Water closet.
K. Elevator.
L. Closet.
M. Corridor.
N. Kitchen.
O. Store-room.
P. Larder.
R. Ward.
S. Convalescents' day and dining room.
T. Nurse's room.
U. Ward Kitchen.
V. Bath room.
W. Lavatories and water closet.
X. Drying closet.
Y. Lift.
Z. Pantry.
1. Operating theatre.
2. Etherizing room.
3. Waiting room.
4. Ward.
5. Bath room.
6. Water closet.
7. Engine room.
8. Boiler room.
9. Porch.

The condition relative to the arsenal grounds was quickly complied with, and the city of Portland generously gave the adjoining land, thus putting the hospital into possession of a lot more than seven acres in extent, bounded on three sides by streets, and with a frontage both on Congress and Arsenal Streets of more than five hundred feet. In every respect, the site is all that could be desired. Being on the summit of a high hill, it is impossible that the free access of fresh air and sunlight can ever be interfered with by the proximity of surrounding buildings; and the facilities for perfect drainage are unexcelled, the hilltop being more than a hundred feet above the main sewer on Congress Street, giving a fall of about one foot in ten. The view, too, from the hospital would attract the attention and admiration of the most unobservant. On the one hand, are the blue waters of Casco Bay, broadening out into the Atlantic; on the other, a lovely inland scene, the White Mountains looming up grandly in the distance, woody hills and verdant plains intervening, with here and there a glittering lake or winding river, all combining to make a picture of extraordinary beauty.



MAINE GENERAL HOSPITAL.

The supply of water is inexhaustible and constant; for, though the hospital is 145 feet above the level of the sea, it is 100 below the level of Sebago Pond, from which the city is amply supplied with water.

In January, 1871, the following officers were elected: President, John B. Brown; Directors, John T. Gilman, Phinehas Barnes, Andrew Spring, A. W. H. Clapp, Horatio N. Jose, William Deering, Samuel F. Hersey, Joseph H. Williams and George

Walker; Treasurer; James T. McCobb; Secretary, Frederic Henry Gerrish. The death of Mr. Barnes made a vacancy, which was filled in October by the election of Israel Washburn, Jr.

The Directors chose Mr. F. H. Fassett for architect, who, in company with prominent physicians, visited the principal hospitals in New England and New York, and had the amplest opportunities for observing the defects as well as the excellencies in all these institutions; and it is believed that his plans embody all the advantages it is possible to combine in a single hospital.

The plan includes a central building, four pavilions, kitchen, boiler-house and operating amphitheatre.

The main building, four stories high, stands midway of the lot, sixty feet from and facing Arsenal Street. It contains rooms for the superintendent and household, executive offices, cabinet, library and dispensary on the first and second floors, and private wards on the third and fourth.

On either side, and at a distance of seventeen feet, is a pavilion, three stories high and 145 feet in length; sixty feet behind each of these and parallel with it, is another pavilion. The two in front face on Arsenal Street, while those in the rear face toward Congress Street. A description of one answers for all. The central portion of the second story is occupied by the main ward, eighty feet long, thirty wide, and fifteen high. It is calculated for 20 patients, 10 on a side, thus giving eight feet from the centre of one bed to the centre of the next—as much as is allowed in any hospital in the world. The room has six double-hung windows on each side, which run nearly to the floor, thus giving the patients an opportunity to look out. For each bed there is a gas jet and a ventilating flue, and a heating register for each two beds. There are four open fire-places, one in each corner. In the wing of the pavilion toward the central building are the nurses' room, ward-kitchen, convalescents' day-room and dining-room, two small wards, water-closet and stairway. In the other wing are the stairway, lavatories, bath-room, water-closet and one small ward.

The third story is like the second in every particular.

The rooms in the lower story are thirteen feet high, those in the ends corresponding precisely with the rooms immediately above. The front half of the central portion is divided into four rooms, which are separated by sliding partitions only, so that all may be thrown into one large room. This is to be used as the accident wards. The rear half is divided into six small rooms for attendants and servants.

The wings of the pavilion are absolutely fire-proof, and the main portion is practically so, the girders being of iron and the floor double, enclosing an inch and a half of grouting.

The pavilions are connected with the central building by corridors two stories high, and entirely open at the sides, thus allowing a perfectly free circulation of air between the buildings.

At the back of the central building, and connected with it by a closed corridor, is the kitchen. On the first floor are the larder, pantry and main kitchen; and on the second, the cook's living-rooms.

Still further back, and entirely disconnected, is the boiler house, two stories high, containing the boiler-room, engine-room and laundry. In this building the steam is generated by which all the buildings are heated. The main chimney-shaft, one hundred feet high, has air-chambers around it, in connection with and for the purpose of ventilating the water-closets, drains, kitchen and laundry.

Further back still, is the amphitheatre. It is a square building, on the ground floor of which are apartments for the treatment of out-patients. Above are a reception-room, etherizing-room, bath-room, a small ward for the temporary accommodation of a patient who is unable to be carried further, a "glass room" for examinations and operations requiring a very strong light, and, finally, the operating-room with seats for two hundred and fifty spectators. The building is so arranged that the hospital patients cannot possibly be annoyed by the coming and going of students.

All the buildings are of faced brick, laid with lime and cement, with underpinnings of Hammond granite from Thomaston, and trimmings of Nova Scotia free-stone of two colors. The stairs are of iron, the roof of slate, and the cornices of galvanized iron. The floors are of birch, the boards being tongued and grooved and blind-nailed. The walls have a hard sand finish, all the angles being rounded. The wood work is of ash, finished very plain. The apparatus for heating and ventilating is of the most approved pattern.

This description will be made clearer by a reference to the accompanying cuts. The first is the plan of that portion of the grounds that will be occupied by the buildings, and represents the second floor of the four pavilions and the amphitheatre, the ground floor of the other buildings. The second is a perspective drawing of the hospital as it will appear when completed.

The corner-stone of the eastern pavilion (that at the lower right-hand corner of the plan) was laid Aug. 29, 1871. The roof was put on late in the fall, and work was then suspended for several months, as it could not be economically prosecuted in the short and cold days of our northern winter. Several weeks ago, work was resumed, and the building will soon be completed. The central building (the foundation of which is already laid) will be erected this season, and the kitchen and boiler house as soon as sufficient additional subscriptions are secured. Unless unforeseen obstacles prevent, the hospital will be ready to receive patients in the summer of 1873.

The total value of the hospital's property and available resources is more than $103,000. There is enough money at present in the treasury to finish the pavilion, now nearly completed, and erect the walls of the central building. About $30,000 additional is needed to build the kitchen and put in the heating apparatus. The citizens of Portland have contributed $45,000 of the $47,000 that has been raised by private subscription, and a movement will soon be made to secure subscriptions from all the towns in the State. F. H. G.

Hospital Reports.

BOSTON CITY HOSPITAL.

SIX CASES OF FRACTURED CRANIUM.

Reported by George E. Coulthard, House-Surgeon.

Case I.—(*Service of Dr. Homans.*)—June 25th. C. M., æt. 7, a slender youth of delicate appearance, while pursuing his pastimes, fell a distance of eleven feet. At the time of entrance to hospital, there was hæmorrhage from both nostrils; he complained of chilly sensations and at frequent intervals vomited, the vomitus being mixed with coagulated blood. Pupils normal, responding readily to light. Pulse 64, intermittent, of fair strength. Above left ear there was a depression of skull, circular in outline, two and one-half inches in diameter. Respiration normal, easy.

Dr. Homans made a crucial incision at the posterior edge of the circular depression, and applied the trephine, elevating the portion of bone in that neighborhood. The trephine was again applied at the uppermost part of the circle and the remainder of the depressed bone restored to its normal position. The edges of the extremities of the incisions were apposed, the greater part of the wound being left open. Cold applications. Stimulants by mouth and rectum.

26th.—Quite bright this A.M. Passed a good night. Vomited somewhat through day.

27th—Sat up in bed part of day. Pulse 96, regular, good. Tongue with thin creamy coat.

28th.—Slight suppuration in wound. Right eye almost completely closed from serous effusion. Pulse 100.

29th.—Took solid food.

July 3d.—Running about ward. Healthy suppuration.

25th.—Pus now bagging above ear, below incisions. General health excellent.

Aug. 14th.—Original wound mostly closed, but a thin purulent matter still continues to escape, on pressure, over swelling above ear.

Sept. 11th.—Exploring trocar revealed no pus.

Oct. 1st.—General health excellent. Swelling still continues. Pus of thicker consistency. Mind unimpaired.

22d.—Bone necrosed and exfoliating.

Nov. 6th.—Seton inserted.

17th.—Patient was etherized and two pieces of carious bone as large as ungual phalanges removed.

28th.—The wound is filling in healthily.

Jan. 9th.—Discharged with granulating wound two inches in length and one inch and one-half in width.

Case II. *(Service of Dr. Homans.)* June 27th.—E. S., æt. 11, a stout, robust lad, while engaged in play, fell a distance of 12 feet, striking upon the hard ground. On arrival at the hospital, he was in a semi-conscious condition, the pulse at wrist being inappreciable, and extremities cold.

On examination, the vault of the cranium about and anterior to the junction of the coronal and sagittal sutures was found comminuted and depressed, the scalp also being somewhat lacerated.

The patient was etherized, and the scalp having been incised, the trephine (one-half inch diam.) was applied at a point a little anterior to the parietal eminence. Three pieces of bone were removed; one measuring two inches in length by one and one-fourth inch in width, the other one and one-half inch in length by three-fourths of an inch in width, the third piece being much smaller. Cold applications to the wound, which was allowed to remain open. Stimulants were directed in form of lemonade and rum—six parts to one.

28th.—Semi-conscious condition continues. Pupils dilated considerably. Three involuntary dejections. Pulse 160, but inappreciable at the wrist.

29th.—Very restless through night, and shouting deliriously at intervals. Is kept in bed with difficulty. Pulse 136, stronger; has returned at wrist. Respiration 22, regular. Cream and rum.

30th.—Suppuration established. He is more rational and signifies a desire for drink. Pupils normal; pulse 120, stronger.

July 1st.—Quiet in bed. Helps himself to drink at bedside. Tongue with thin, creamy coat. Pulse 120.

2d.—Quite rational. Asks for solid food. Bowels costive.

℞. Pil. cath. comp. No. ij. Nocte.

3d.—Walking, with assistance, about ward. In afternoon, deeply engaged in game of checkers with neighbor, who has simple fracture of skull. Slight paralysis of right side of face. Pulse 104.

10th.—Free suppuration; wound filling in at the extremities. Appetite excellent. Pulse 92.

17th.—Wound granulating healthily. Brain-infiltration in wound well marked.

Aug. 5th.—Wound healed, with exception of a small granulating surface about three fourths of an inch in length.

12th.—Faint line of granulations. Health in every respect excellent. Pulsation beneath cicatrix. Slight paralysis of right side of face remaining. Mind unimpaired and remarkably active. Discharged.

Case III.—*(Service of Dr. Ingalls.)*—July 20th. J. Z., æt. 10, was kicked by a horse and suffered a fracture of the skull, the greater portion of the bone occupying right temporal fossa being broken in. Cranium was trephined, and three pieces of bone removed; one piece two inches in length by one inch in width, the remaining parts being about one and a half inch by half an inch. There was also a laceration of the brain, a small portion torn off, protruding from the wound.

21st.—Convulsive movements. Right eye closed and ecchymosed. Convulsions more marked on side of injury. Pulse 84, very irregular.

22d.—Convulsive movements continue. Pulse 120. Potass. bromid. gr. v. 3 t. d.

24th.—Pulse stronger, but convulsions still severe; most marked on left side of face and right side of body. Hernia cerebri. Considerable discharge from wound.

28th.—Strong convulsions this morning on left side of face and body. Hernia protruding one inch.

29th.—No convulsions to day.

30th.—Hernia sloughing. Foul pus exuding on pressure.

31st.—Large amount of pus and disintegrated brain tissue pressed out. Talks incoherently and irrationally. Paralysis of left side of body. Head drawn to left.

Aug. 1st.—Dead.

Case IV. *(Service of Dr. Thorndike.)*—Jan. 29th. H. O., æt. 24, was driving his car in a blinding snow-storm, when at the top of a hill, finding that he could not apply the brake, he freed the horses. They immediately ran, dragging him down the hill. Before reaching the bottom he was thrown with considerable violence against a car coming in the opposite direction. On arrival at hospital, there was found a fracture of the inferior maxilla, just to the right of the symphysis; also a flesh wound extending from outer angle of left eye downwards an inch. Both conjunctivæ were deeply congested, and the eyelids were ecchymosed. A number of slight bruises about the face, and profuse epistaxis. Jaw wired and bandaged. Epistaxis controlled by use of ice.

30th.—Patient restless and slightly delirious.

31st.—Persists in tearing off bandages, and has loosened wire till its removal is necessary.

Feb. 1st.—Delirium, typhoidal in character.

℞. Quin. sulph., grs. ij.;
Vini xerici, ℥ss.

every four hours.

3d.—Ecchymosis disappearing. Patient more quiet. Appetite poor. Continues in a stupid state, and appears only partially conscious of his surroundings.

5th.—Jaw again wired. At 12, P. M., patient's condition suddenly changed. When sleeping quietly, breathing became stertorous, respiration slow, pupils contracted, insensible to light; pulse full, strong, 120; heart's action violent. Apparently a paralysis of right side, but with no distortion of face.

6th, 12.45, A. M.—Pulse weaker, 140. Respiration slower, with more spasm.

2.45, A. M.—Dead.

On autopsy there was found a fracture of base of skull, through middle fossa, the frontal plate being also entirely separated from orbital plates of frontal bone. Upper part of anterior lobes covered completely with a large-sized, thick clot, extending either way as far as external angular process of frontal bone.

Case V. *(Service of Dr. Cheever.)* Feb. 6th.—J. C. was taken to station-house last night intoxicated. This A. M. was found unconscious and brought to hospital.

On examination, respiration irregular; pulse full, slow and irregular. Right pupil dilated; left somewhat smaller. Bleeding from right ear. Paralysis of left side. Patient moves right arm and leg when pinched; but there is no motion of left side of body. In a stupor.

4, P. M.—Cannot be roused at all. Profuse perspiration.

8, A. M., 7th.—Unconscious. Breathing stertorous. Pulse rapid and weak, 150. Face congested.

10.10, A. M.—Dead.

Autopsy.—On opening the skull, a large clot, occupying nearly the whole surface covered by parietal bone, was found. The clot was four inches in diameter, one and one half inch in thickness, external to dura mater. In this region the brain was flattened and pressed deeply in by clot. Slight softening of base of left middle lobe. A fracture of stellate form, having its centre above and behind right ear, was found, which extended into base of skull through roof of external ear, as far as carotid foramen. Above, the fracture was traced for about two inches obliquely into parietal bone.

Case VI. *(Service of Dr. Borland.)* Jan. 8th.—J. M. was brought to hospital about 5.20, P. M., with the statement that he was taken to police station two days previously, supposed to be intoxicated.

When first seen, decubitus dorsal, slight contusion over right eye, and abrasion over left. Face congested. Right pupil somewhat dilated and immovable; left more normal and responding to light. Eyes somewhat dry and glazed. Skin hot and moist. Sordes on teeth. Attempts to protrude tongue when shaken and told to do so. Tongue moist, somewhat coated. Inspiration stertorous; respiration somewhat noisy and blowing. When shaken, appears to be slightly conscious, but mutters indistinctly and incoherently. Unable to tell name distinctly. In attempting to move himself, motion is confined mostly to the right side. On pinching left foot, an attempt is made to retract it, but the response to irritation is decidedly greater in the right limb. There is a slight tendency to contraction of left arm and hand. On pinching left hand, lying at side, the patient moves the opposite arm and hand. Slight power in left arm. No apparent facial paralysis. Passes urine as he lies. Pulse full and strong, 68, running up to 100 when roused. Respiration 40. Temperature 102° Ice bag to head. Enema.

7.15, P. M.—Patient moving restlessly in bed most of time. Frequent and unconscious muttering. Stertor with inspiration continues. Expiration noisy, with slight puffing out of lips and cheeks. Pulse unchanged. Bowels moved by enema. Peculiar fetor of breath.

10, P. M.—Pulse varying from 72 to 140. Respirations 36, but varying. Loud stertor. Tracheal râles.

9th, 5, A. M.—Pulse not to be counted at wrist. Forehead warm and moist. Respiration 48, gasping. Little stertor.

5.40.—Dead.

On autopsy, there was found a fracture of the base of skull, with a large clot beneath right parietal bone, circular in outline, four inches in diameter, three-fourths of an inch in thickness at centre, and growing thin toward edges. Brain substance considerably depressed. Middle meningeal artery ruptured.

Reports of Medical Societies.

SUFFOLK DISTRICT MEDICAL SOCIETY. REPORTED BY J. H. MC'COLLOM, M.D., BOSTON.

The Society met April 27th, the President, Dr. G. H. Lyman in the chair.

Cancer of the Pancreas.—Dr. Tarbell reported the case.

The patient was a man about 32 years old, who had no hereditary tendencies to disease and had never had any serious illness, although he was never very robust. Four months previous to the time when he was seen by Dr. T., he was suddenly seized, while walking in the street, with dizziness, pain in the head and vomiting; and subsequently he had similar attacks, with pain in the epigastrium and in the region of the liver. About three weeks before Dr. Tarbell saw him, the patient first noticed a swelling in the right hypochondrium. Feb. 26th, when he was seen for the first time, there was a hard tumor occupying the right hypochondrium, extending forward to the median line and downward nearly to the umbilicus. He was severely salivated by mercury, which he had been taking. By the advice of Dr. T., he was sent to the

Massachusetts General Hospital, where he remained about five weeks. While there, he recovered from the salivation and was quite comfortable, but the tumor steadily and rapidly increased. Soon after April 3d, when he left the hospital, he again came under the care of Dr. Tarbell. At this time the tumor occupied the entire right side of the abdominal cavity, from the ribs to the pelvis, and extended a little to the left of the median line. It was nodulated and very hard, but was not very sensitive on pressure. At two points—one in the epigastrium and the other about two inches below and to the right of the umbilicus—there was resonance on percussion, with a sense of fluctuation and gurgling on pressure. About ten days before his death, the patient became intensely jaundiced. Vomiting, which had thus far been only occasional, became constant. The bowels were regular until two days before his death, and there were not, at any time, fatty or clay-colored stools.

Intense pain was a prominent symptom from the first, but during the last three days of life the patient complained of a terrible tearing or gnawing pain at one point low down in the abdomen, and a feeling as if something gave way when he moved. He died after an illness of six months, and three months after the tumor was first noticed.

Dr. Fitz exhibited the specimen and gave an account of the autopsy. The lungs were œdematous, but otherwise healthy. The pelvis of the right kidney was slightly dilated. There was no disease of the liver. The cystic and hepatic ducts were distended by bile, and there was a considerable quantity of bile in the duodenum and stomach. There was a large tumor, nearly twice the size of an ordinary liver, situated in and behind the mesentery. The pyloric end of the stomach was in front of the tumor, and the transverse colon crossed near the centre. The mass of the tumor, which was cancerous in its nature and of the encephaloid variety, was made up of diseased mesenteric glands. The posterior portion of the head of the pancreas was also implicated and enlarged to the size of a lemon, while the remaining portions of the pancreas and the pancreatic duct were in a healthy condition. There was a nodule of secondary disease beneath the mucous membrane of the common duct and also one in the duodenum. At the lower portion of the tumor there was a large nodule, the surface of which was granular and denuded of periosteum, presenting at one portion a distinct rent in the tissue. There was a considerable deposit of recent false membrane upon the peritoneum in the immediate vicinity of this rent. About a pint of bloody fluid was found in the peritoneal cavity, and in the pelvis nearly six ounces of coagulated blood. The tumor was found to consist of round and spindle-shaped cells, with granular and fibrous intercellular substance.

It was interesting to compare this case with the one reported by Dr. Bowditch, and also with Dr. Read's case, reported at the last meeting. In the latter cases, there was disease of the liver and thrombosis of the portal vein, but in the former, the liver and the portal vein were healthy. The duct of the pancreas was obstructed in Dr. B.'s case, while in this case it was normal. Fatty stools were a prominent symptom in Dr. B.'s case, and had attracted the patient's attention, while in this case they had not been present. The absence of any disease of the liver where there was so great an amount of disease in the abdominal cavity was unusual, and was interesting in relation to the theory of the propagation of disease by emboli.

Dr. Ellis stated that he had seen this patient once, about a fortnight after he left the hospital. Dr. C. said that he wished to speak of the results of percussion as compared with those of palpation in the diagnosis of the disease in this case. By palpation, there was detected, on the right side, a large, firm, irregular mass extending from the edge of the cartilages below and to the left of the umbilicus, apparently continuous with the liver; but by percussion, there was found a band of resonance, between two and three inches broad, extending from the epigastrium along the edge of the cartilages to the right lumbar region. The flatness of the liver extended from a line drawn through the right nipple to the line of resonance, by which it was separated from the flatness of the large mass in the umbilical region. The form of this mass and its relations to the liver were not such as are commonly seen in growths from that organ. These facts, together with the resonance, made it probable that the mass in the umbilical region had originated in the abdomen below the liver. As there were no symptoms pointing to disease of any of the abdominal organs, it seemed probable that the growth had commenced in some fold of the peritoneum or in the connective tissue. The autopsy, however, proved that the disease had commenced in the pancreas, which is the last organ in the body to be invaded, and it had extended in such a direction as not to obstruct the duct, and therefore gave no indication of its seat. In accordance with the general rule, the liver should have been the seat of secondary formations, but none were found in this case.

Dr. Jackson remarked in this connection that, with one exception, every cancerous tumor of the pancreas that he had seen had been of the soft variety.

Dr. J. exhibited a large number of urinary calculi, of a very peculiar shape, which were found at the autopsy of the late Dr. Ball, of Northboro', who was between 80 and 90 years of age when he died. Dr. J. said that he knew nothing about the symptoms in the case, and was unable to say whether any were passed during life.

Dr. Abbot reported a case of aneurism of the heart. Dr. Fitz showed the specimen. This case was published, in the report of the Society for Medical Improvement, in a previous number of this JOURNAL.

Dr. S. D. Hayes, who was present by invitation, read a paper on poisoning by arsenical paper-hangings, and he also exhibited a large number of papers which he had analyzed. He advised the use of the sulphide of ammonium test for the detection of arsenic in wall-paper, as being more accurate than the tests ordinarily employed in such cases. The theory that the poisoning was due to the chemical action of coal gas on the pigments was not generally accepted. The garlic smell perceived in rooms hung with arsenical paper, which has been brought forward as an argument in support of this theory, has also been observed in rooms where no coal gas was used.

Adjourned.

MASSACHUSETTS MEDICAL SOCIETY.

FIRST DAY'S PROCEEDINGS.

THE anniversary meeting of the Society began on Tuesday, June 4th, in this city.

The morning hours were occupied by visits to the wards and operating-amphitheatres of the Massachusetts General Hospital and of the City Hospital.

At noon the Fellows assembled in the hall of the Lowell Institute. Dr. Ebenezer Hunt, the Vice President, occupied the chair. Papers upon medical subjects were read by their authors as follows:—

1. Alfred L. Haskins, M.D., Diseases of the Cæcum and Appendix.
2. B. H. Tripp, M.D., Adipocere.
3. Charles P. Putnam, M.D., the Food of Infants.

At 2, P.M., the Society took a recess of two hours, after which it listened to a paper by B. J. Jeffries, M.D., on the Value of the Ophthalmoscope in Diagnosis to the General Practitioner.

At the conclusion of the reading, a number of the members reported cases of interest occurring in their practice, and an informal discussion occurred on various medical topics.

Adjourned at 6, P.M.

COUNCILLORS' MEETING.

At half past seven in the evening the Councillors of the Society, to the number of nearly seventy, assembled for their annual meeting, at the rooms, No. 36 Temple Place. The President, Dr. S. A. Fiske, occupied the chair.

The Secretary's records of the last meeting were read and approved.

The President appointed a nominating committee, consisting of one Councillor from each District Society, to present a list of officers for the ensuing year.

Dr. Shattuck reported for the Library Committee, the receipt during the year of various pamphlet publications and other additions to the library. The Committee recommended the sale of the accumulated past publications of the Society, and the gift to the Public Library of Boston, or to some other such institution, of the books, mostly old ones, at present in the library and scarcely ever consulted.

The report was accepted, and authority given to the Committee to execute its recommendations.

The Treasurer, Dr. Minot, read his annual report, by which it appeared that the receipts for the past year have amounted to $9,916.43, and that the expenditures were $8,633.53, leaving a balance in the treasury of $1,282.90. The diminished surplus, as compared with the previous year, was accounted for partly by the smaller receipts on account of the tardiness of the District Society Treasurers, and partly by the increased expenses.

The report, with the accompanying Auditors' report, was approved.

The Committee on Publications reported through Dr. Shattuck that the Communications and Proceedings of the Society had been published and circulated with all the despatch possible considering their increased number and amount. They also reported the receipt from the Trustees of the Boston City Hospital of five hundred copies of the Medical and Surgical Reports of the Hospital, for gratuitous distribution among the Fellows.

On motion of Dr. J. B. S. Jackson, the thanks of the Councillors were voted to the Trustees of the Hospital for this large donation.

The President announced the various Standing Committees for the coming year.

Dr. Lyman reported for the majority of the Special Committee appointed to consider the petition of certain members of the Essex South District Society, residing in Lynn and vicinity, to be organized as a new District Society, that the granting of the petition would not appear to subserve the best interests of the State Society, and recommended, therefore, that the petitioners have leave to withdraw.

The report, after the presentation of a minority report and full discussion, was adopted.

The Secretary read a communication from Dr. N. S. Davis, of Chicago, forwarding, in behalf of a committee of the American Medical Association, a report and resolutions favoring the examination by Censors of young men intending to study medicine, to pass upon their fitness therefor. The documents were laid on the table.

Drs. Alonzo Chapin, Bronson and O. Martin were appointed a committee to present to the Society for its concurrence, the resolutions passed at the last meeting of the Councillors approving and supporting the action of Harvard University in modifying the course of medical study with a view to raise the standard of medical scholarship.

The Committee on Nominations reported the following as the officers for the ensuing years, and they were elected by ballot:—

President.—Dr. George C. Shattuck.

Vice-President.—Dr. B. E. Cotting.

Corresponding Secretary.—Dr. C. D. Homans.

Recording Secretary —Dr. C. W. Swan.

Librarian.—Dr. D. H. Hayden.

Treasurer.—Dr. Francis Minot.

The following appointments were made for the next anniversary meeting:—*Orator*, Dr. C. E. Buckingham. *Anniversary Chairman*, Dr. O. C. DeWolf. *Committee of Arrangements*, Drs. C. D. Homans, R. M. Hodges, A. P. Hooker, J. N. Borland, Robert Amory and A. H. Nichols.

On motion of Dr. Lyman, a unanimous and enthusiastic vote of thanks was tendered the retiring President, Dr. S. A. Fiske, for the able and faithful manner in which he had conducted the affairs of the Society, especially during the recent trying period of its history.

Dr. Fiske responded feelingly and appropriately, claiming, he said, no credit for aiding an attempt to uphold the honor of the Society and its right to clear itself of all irregular practices.

At 9.30, the meeting adjourned, to partake of a collation provided by direction of the Committee of Arrangements.

Selected Papers.

ON THE USE OF NITRATE OF SILVER IN TESTITIS AND CARBUNCLE.

By George Cowell, F.R.C.S., Senior Assistant Surgeon to Westminster Hospital.

The uniform success in my hands, during the last five years, of the use of the solid nitrate of silver, in cases of testitis and anthrax, has led me to recommend the more general adoption of this mode of treatment in these cases, as I am sure it requires only that its eminently satisfactory results should be known.

And first as to testitis. The ordinary commencement of the treatment of swelled testicle in the acute form is still too frequently the application of leeches. Of late years the plan of puncturing, with a thin, sharp knife, the tunica albuginea of the hard and painful testicle, as recommended by Mr. Henry Smith, has been tried by many surgeons, and with, certainly, generally favorable results. The former mode of treatment I have long given up; the latter I have been willing and anxious to try; but so favorable and prompt has been the effect of the application of nitrate of silver, that I have not once had an opportunity of doing so.

The plan I adopt is the following:—The scrotum is held in such a way that the portion of it which surrounds the swollen testicle is rendered—if not already so—sufficiently tense to present a tolerably smooth surface of skin. This is first wetted by means of a sponge, or, better, by a piece of lint, previously dipped in water, and the solid nitrate of silver is then carefully and equally applied over the whole testicle. A suspensory bandage and rest are, of course, prescribed, and such general treatment as may be required. Pain disappears in from *two* to *six* hours, and this is accompanied and followed by a gradual diminution of the swelling, the reduction being generally about one-third during the first three days. Considerable smarting occurs for a short time after the application, and sometimes there is some vesication. The further treatment of the case becomes exceedingly simple.

During the last five years I have treated in this way a large number of cases, and only twice has the application failed to reduce both pain and swelling: in both of these the appearance of the skin of the scrotum showed that the remedy had been but partially applied, and in both the symptoms were rapidly removed by a second and more careful application of the caustic. The rapid effect of this treatment is still more marked in cases of double testitis; the whole skin and dartos of the scrotum contracts firmly around the testes, speedily relieving the engorgement of the capillaries and seeming to produce a gentle uniform pressure on the swollen organs. I have never known abscess to occur in any case treated with nitrate of silver.

In both the forms of anthrax—carbuncle and boil—the application of the solid nitrate of silver affords the most speedy means of cure. One looks back, with feelings almost akin to horror, at the heroic plan of treating carbuncles, sometimes enormous in their size, by crucial incisions; cases, too, occur to one's memory in which, in spite of this operative procedure, the carbuncle still went on increasing in size; where, in fact, the incisions not only did no good, but positively did harm, by the shock to the patient and the increased risk of pyæmia. A lecture upon this subject by Sir James Paget appeared in the *Lancet*, Jan. 16th, 1869, in which he strongly condemned this mode of treatment.

The treatment he recommends is at first a piece of emplastrum plumbi with a hole in the centre; then resin cerate on lint, covered over with a large poultice (half linseed and half bread); and then, later, the careful application of carbolic acid lotion, or some other deodorizing fluid. With these measures must, of course, be combined cleanliness, fresh air, and a careful regulation of diet.

I have found, however, that the duration of carbuncle is very materially diminished and its extension cut short, by preceding this treatment by the application of nitrate of silver freely over its surface, repeated, if necessary, once or twice after intervals of two days. Immediately after the application, a small soft pad of dry lint is applied and retained by means of a piece of strapping and a bandage. The after treatment is the same as Sir James Paget recommends, except that the poultice will be unnecessary, and the internal administration of iron or other tonic will generally be found useful.

Boils are treated in the same way, and will seldom require a second application of the caustic.

The *modus operandi* of the application of nitrate of silver in these cases seems to be the energetic stimulation, and consequent contraction, of the capillaries and small arteries of the part, whereby engorgement is diminished, the vessels are placed in a condition for returning to a healthy function, and morbid exudation is diminished, arrested and removed.—*London Practioner.*

THE USE OF GLYCERINE AS A SOLVENT IN HYPODERMIC INJECTIONS.—Dr. M. Rosenthal calls attention, in the *Wiener Medizinische Presse* for January 7, 1872, to the power which glycerine possesses to dissolve various of the substances which are ordinarily used in hypodermic medication. Its solvent powers are greater than those of water, and are very much increased by heat. Thus, a fluidrachm of glycerine, when heated, will readily dissolve twenty grains of the sulphate of quinia, from ten to twelve grains of the acetate or muriate of morphia, and ten grains of the extract of opium. Morphia may be added to a solution of quinia in glycerine without causing a precipitate. It will also dissolve from half a drachm to one drachm of the iodide or bromide of potassium, and four grains of corrosive sublimate. These substances are not precipitated as the liquid cools; on the contrary, the solution will remain clear and fit for use during at least a year.—*Med. Times.*

TO DETECT SULPHURIC ACID IN VINEGAR.—An ounce of the vinegar to be examined is put into a small porcelain capsule, over a water-bath, and evaporated to about half a drachm, or to the consistence of a thin extract; when cool, half a fluidounce of stronger alcohol is to be added and thoroughly triturated. The free sulphuric acid, if present, will be taken up by the alcohol to the exclusion of any sulphates. Allow the alcoholic solution to stand several hours and filter; to the filtrate add one fluidounce of distilled water, and evaporate the alcohol off by gentle heat, over a sand-bath; when free from alcohol it is set aside for several hours and then again filtered. To the filtrate, acidulated with hydrochloric acid, add a few drops of a solution of chloride of barium, and a white precipitate of sulphate of barium will result, if the sample of vinegar has been adulterated with sulphuric acid.—*Amer. Jour. of Phar.*

Medical and Surgical Journal.

Boston: Thursday, June 6, 1872.

We willingly relinquish our editorial space in the present number of the Journal in order that we may present a full report of the dignified and seasonable address of Dr. Fiske before the Massachusetts Medical Society at its Anniversary Dinner. We feel assured that such a temperate and unprejudiced review of the vexed questions which have recently been brought to prominent notice in the Society will secure the special attention of all our readers.

ADDRESS

Of Dr. Samuel A. Fiske, of Northampton, in reply to the following toast:—

"The welcome which has just been so heartily awarded to the President elect finds a counterpart in the feelings of regret with which we release the retiring President from the responsibilities of office. Parting from us with the grateful remembrance of his dignified and judicious administration, he will carry with him the cordial good wishes of every Fellow of the Massachusetts Medical Society."

I thank you, Mr. Chairman, for the kind manner in which you have alluded to my official relations with the Massachusetts Medical Society.

Within the last two years, during which time I have had the honor to occupy its chair, questions involving the integrity, the honor, and possibly the future usefulness of the Society have arisen.

After a long and careful examination of these questions, I am compelled to say that I think they have been met in the most judicious and dignified manner, and in the only way in which the well-being and harmony of the Society can be preserved.

The action which has brought this Society so prominently before the public has not only been made necessary, if it would stand honorably before the medical world, but necessary for unity and good fellowship among its members. That action, Mr. Chairman, looking to the expulsion of Fellows violating its code of ethics, was neither an attempt to prevent any physician from practising any system of medicine he pleased, nor an attempt at martyrdom, nor a persecution for opinions entertained, as certain persons against whom the Society proceeded have attempted to make the public believe.

They allege that they have been "persecuted," because they have forsaken an old system for a new one. Let us, for a moment, look at this statement and see how the case stands.

Modern medical science, as taught by this Society, is not and cannot be an old system. It is not only progressive, but it is a rapidly advancing science. Its researches, pushed with an ardor that laughs disease and pestilence, and almost death itself to scorn, make it necessary that the life of the scientific physician should be that of an industrious and laborious student, if he would keep pace with its rapid advancement. Modern medical science—the great principles of which are adopted and inculcated by the Massachusetts Medical Society—with an abnegation of sectarian pride, lays all sciences, all arts, all knowledge under contribution, and culls from every source anything and everything which it finds useful in mitigating disease, or as an assistant to nature in righting herself if thrown wrong; it plucks, even from the filthy channels of quackery, any pure gem should it appear in its mass of rubbish, and places all, gratuitously, upon the altar of humanity.

This Society, Sir, claims that the result of ages of the industrious working of the intellect of the medical seekers after truth, is not in vain; and while "it recognizes no SPECIAL THEORY, but, on the contrary, proclaims entire freedom from the bonds of all narrowing hypotheses," it declares that the best talent of all time and of all countries has not been employed in heaping together an empty pile of nothingness, to be puffed away by the breath of ignorant enthusiasm, insane imagination or charlatan pretension. It says: "It is not possible that the two hundred thousand physicians who now have the health of the civilized world in their charge, many of whom are the glory of the country and the ornament of the age in which they live, should be so mistaken as to yield their undoubted confidence to a mass of error. *It deals in no mysteries*; its magazines of knowledge are open to all who choose to examine; it does not profess to have secret depths which ordinary intellects cannot fathom."

Such is modern medical science; and such the broad and liberal foundations of the Massachusetts Medical Society, which says to all and every physician in the Commonwealth, properly educated in the science of medicine, we welcome you to our fellowship, to our protection and to our honors.

Now, as you are aware, Mr. Chairman, a score or so of the members of this Society have seen fit to abjure the broad principles of medical science and to repudiate the result of medical researches of all time. They have adopted as their system an exclusive dogma, which dogma is based, not upon a knowledge of human anatomy, physiology, pathology, chemistry, hygiene, &c., but which is simply empirical, requiring *only* a knowledge of the symptoms, *not* of the causes of disease, and of certain infinitesimal remedies which, they claim, produce similar symptoms to those of disease. I state this upon the authority of the author and founder of their system.

This dogma, from its very nature, shuts off all progress and all improvement, for any advancement on their part is at once a departure from and an abandonment of their exclusive dogma; and if they advance from this position they then cease to practise what they profess to, and cease to be what they call themselves. If, as the author and founder of their system declares, "everything of a really morbid character, and which ought to be cured, *consists solely in the sum total of the symptoms*, by which the disease demands the medicine requisite for its relief, whilst, on the other hand, *every internal cause*, every occult quality, or imaginary material morbific principle is nothing but an empty dream," it follows that the "peasant or the priest" can practise our divine art as well as the most thoroughly educated and scientific physician.

Now, Sir, if the Massachusetts Medical Society is broad in its foundations and broad in its principles, why has it arraigned certain of its members for "practising or for professing to practise according to this exclusive dogma"?

They have been arraigned, because this Society, more than twenty years ago, pronounced the practice of medicine according to exclusive dogmas contrary to the principles upon which it was founded, and formally requested those who practised according to such systems to withdraw from its membership; and, having forbidden those who "practise or who profess to practise according to any exclusive dogma" to enter our organization, the anomaly of a few Fellows being permitted to publicly denounce and attempt to bring into disfavor the principles of the Massachusetts Medical Society, and yet remain in it unrebuked, became obnoxious to almost the entire body of Fellows; it also became a national medical scandal, and brought indignity upon the Society from the American Medical Association, and criticism in European medical circles and journals.

They have been arraigned, because, while they are members of the Massachusetts Medical Society, they do, by applying opprobrious epithets to the other Fellows who practise rational medicine, and by denouncing the principles of this Society and by proclaiming to the world that they have not only a new but the only true method of practice, insult daily the other *twelve hundred Fellows*.

They have been arraigned, because, while they claim to be in good and regular standing among its Fellows, they thus compel this Society to appear to endorse what it regards as vagaries and delusions, thus placing it in a false position before the public.

They have been arraigned, more especially, because practising, or pretending to practise, according to this exclusive dogma, they have established an exclusive Society, composed to a considerable extent of irregular practitioners, many of whom have had little or no scientific education, in opposition to the Massachusetts Medical Society; and thus have violated a By-Law forbidding any Fellow from making "any attempt to disorganize or to destroy this Society."

You remember, Mr. Chairman and gentlemen, that the honored President of Harvard University told us, at this table last year, in most lucid speech, that "the University has lately taken a great step as regards medical education;" by which its standard, and its requirements for a degree of Doctor of Medicine, are placed far above those of any other medical college in the United States. He asked, at the same time, for the "approbation and support" of the medical profession in this "grave change which has taken place in the Medical School of the University," adding that "the very existence of this ancient Society is a pledge of the support of the profession in every wise attempt to raise the standard of medical education; for," he added with emphasis, "this Society exists mainly to guard the profession on the one hand, and the community on the other, against ignorance and imposture."

That approbation and that support we have deliberately resolved to give to this attempt to furnish better educated and more competent physicians to the community. Thus pledged, should we not be recreant to our obligations and forfeit the respect of the public if we permit Fellows longer to remain amongst us, unrebuked, who are thus affiliating with irregular practitioners, many of whom have not had any scientific education, in a Society established for the purpose of overthrowing the principles of this Society, and to advance an empirical system?

As you are aware, Sir, at our last annual meeting, this Society again pronounced, emphatically, that "practising, or professing to practise, according to an exclusive dogma," was contrary to its principles and By-Laws; and it gave those members who had adopted any exclusive system time to put themselves in accord with the Society, or else to withdraw peaceably from it. Failing to pursue either of these honorable courses, charges against the accused were made *in the usual form*, according to By-Laws, which all members, on entering the Society, subscribe to, and agree to abide by. A Board of Trial was convened, precisely as in the other cases of alleged violation of By-Laws. The accused were notified that they might appear and be heard.

But, *as if in acknowledgment of guilt*, they attempted to escape conviction by appealing to the Supreme Judicial Court for a writ of injunction against the Massachusetts Medical Society, before their case was fairly brought before it.

In this instance, as in all others, where proper forms are complied with, an injunction was granted, temporarily restraining the Society from executing its laws against the accused, until the cause shall be heard by the Court. In due course of time, this matter will be reached, and there is but little, if any, doubt, that the rightfulness of its Acts and the authority of this Society to execute its own By-Laws will be sustained.

To thus obstruct a Society in executing By-Laws, which they pledged themselves to conform to, and abide by, the accused have committed an act looked upon as highly dishonorable; for which act alone, a Medical Society in a neighboring State recently expelled a member, in a most peremptory manner. And what more dishonorable act can a Fellow commit, than to voluntarily join a Society, give a solemn pledge to abide by its laws, and then appeal to the Court to escape the consequences of violating those laws?

Thus far, in these proceedings, the Society has acted with quiet dignity and decorum, and strictly in accordance with its laws—and according to its custom in such trials. With its high sense of honor, it has always refrained from publishing charges against members before conviction, and has always shielded the accused from publicity, by giving them private trials. The present instance is the only one in the history of this Society where parties accused have published their own misdemeanors, and then endeavored to escape the penalties of acknowledged violation of laws of their own voluntary acceptance, by raising the cry of persecution.

This outcry of persecution, by these recalcitrant members, is by no means a new one. It has been the resort of quackery in all times. Why, Sir, in the early part of this century, within the memory of some of our older Fellows, Dr. Perkins, of Norwich, Connecticut, having, as he claimed, discovered a new and an infallible method of curing the ills that flesh is heir to, by passing little metallic points over diseased parts, repudiated and denounced the science of medicine. He claimed, not only a new, but a superior method of treating disease, as the exclusive dogmatists of our day do. The Connecticut State Medical Society pronounced his pretensions to be arrant quackery, and expelled him from that Society. *He* raised the "cry of persecution for opinion's sake." The newspapers took it up and attempted to ridicule the regular physicians, charging them, as they have recently charged the physicians of our Society—with "old fogyism," and with "clinging to an old and worn-out system."

Why, Sir, one would suppose, in reading the newspapers of that time, and some of our day, that undertook to lecture, last fall, the Massachusetts Medical Society, that the same old Rip Van Winkles occupied the editorial chairs now that did then.

When this cry of persecution was raised by the advocates of Perkinism, clergymen in considerable numbers, Professors in Literary Institutions—some jurists, besides the less distinguished in the community, *but more especially the women*, rallied to the support of the new delusion. Loud and bitter were the denunciations against the regular school of medicine.

Perkins and his system went to Europe; and there he and it were patronized by the wealthy—the great and the noble. Physicians of rational medicine, failing to see anything but quackery in his pretensions, made that declaration. Then, they were there, as the physicians were here, bitterly denounced. Ridicule and caricature were added to other means, by which attempts were made to bring the science of medicine into disrepute. A long, satirical poem, filled with lampoons, and insulting to the scientific medical men of England, went through a number of editions. The advocates of Perkinism insisted upon its being introduced and employed in the general hospitals, as was done in some of those upon the continent.

In the city of London large sums of money were raised, for the purpose of erecting a hospital for the exclusive use of patients to be treated by this quack system. Surely, Mr. Chairman, history repeats itself in quackery, as it does in other fashions.

That, like other delusions, attracted the attention of, and dazzled the impulsive and the credulous for a while, who, mistaking the ignis-fatuus for a new luminary, declared that a new order of things was to prevail—and looked upon the sun as an "old fogy," to be superseded. Soon, however, this Will-o'-the-wisp disappeared; and to-day, in all the wide world, the system of Perkinism is discarded, and there is not one so poor as to do it or the memory of its author reverence.

Men, it has been well said, think in herds; it will be seen that they go mad in herds, while they only recover their senses slowly, and one by one.

In concluding, Mr. Chairman, I would emphatically repeat the sentiment of the most prominent of the founders, and the first president of this Society, uttered on his centennial birth-day, at a public dinner given in his honor, by the Medical Faculty of Boston, Salem and vicinity.

"The Massachusetts Medical Society.

"May it flourish and prosper; may it continue to improve the Art for which it is instituted, to the utmost of its wishes, and be the means under Providence of alleviating the pains and evils of life, and of promoting the happiness of society, by suppressing quackery, and rendering the business of the profession as perfect as the nature of things admit."

Bad Symptoms Following Vaccination.—In conversation with different medical men, we learn of severe symptoms following vaccination. One gentleman has reported in the Journal two cases with death as the sequel. Very many of us have seen severe erythema; some speak of abscess.

Will gentlemen oblige their medical brethren, by reporting such cases as were under their observation? Will they let us know when there have been bad symptoms, how many of them have followed primary vaccinations; how many have followed secondary vaccinations? How many have followed the virus supposed to be from the human subject? and how many that supposed to be from the heifer? Will gentlemen tell us the proportions of failures of one or the other virus? Will they report cases where they have afterwards discovered that syphilis or scrofula or some other *bipedic* disease, or hoof ail or some other *quadrupedic* disease, existed in the original focus?

There is no reason why we should not speak plainly.

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Treatment of Delirium in Smallpox.—Dr. Harris Ross, in a paper on the late smallpox epidemic at Brighton, remarks that, with regard to the use of stimulants, he believes that in ordinary cases they do more harm than good, but of their value in complicated cases he has seen marked instances. A very useful remedy in the delirium which so often accompanies confluent smallpox he has found to be one ounce of brandy, thirty minims of nepenthe, and a little warm water. He has seen patients raving and running about the wards, who within an hour of taking this dose were in a quiet slumber, and were invariably better the next day. He has tried chloral repeatedly, but has not found it answer anything like so well as the brandy and nepenthe. In severe cases he believes alcohol may sometimes do harm. A young woman was sent in with confluent smallpox of a very severe character, who had been taking brandy and port wine every three hours. She had no sleep for several nights, and was very delirious. Dr. Ross stopped all stimulants, put her on a simple farinaceous diet, and found her on his next visit much improved, and she ultimately recovered. Amongst the various methods of preventing pitting, as collodion, solution of gutta-percha in chloroform, strong solution of caustic, &c., he cannot say that anything appeared to him to have any effect except keeping the room dark. The plan advised by a recent writer, of touching all the pustules with strong carbolic acid by means of a camel's-hair brush, he thinks would be dangerous, at least in a state of confluent smallpox.—*Lancet.*

Strychnia in Albuminuria. — Brignoli (*British Medical Journal*, October 28; from *La Sperimentale*), besides recommending nux vomica in various neuroses, gastralgia, dyspepsia, cardiac palpitations, periodic cough, &c., states that he has observed it to have a marked effect in retarding the progress of albuminuria, especially the scarlatinal form with anasarca. He cites twelve cases of complete recovery.—*Med. Times.*

Medical Miscellany.

APPOINTMENT.—Dr. S. A. Green, City Physician, has been elected Superintendent of the Boston City Hospital.

RESIGNATION.—Dr. Wm. Read has resigned his position as one of the Board of Consulting Physicians of Boston.

LONDON OBSTETRICAL SOCIETY.—The election of Dr. C. E. Buckingham, of this city, to the Obstetrical Society of London was recently noted in this JOURNAL. We are informed that the honor of membership has been extended also to Dr. W. L. Richardson, of Boston; and that among the honorary members is included the name of Dr. Walter Channing, the only Fellow of the Massachusetts Medical Society who at present possesses that distinction.

BOYLSTON PRIZES.—At the annual meeting of the Boylston Prize Committee, held June 3d, 1872, a prize of $200 was awarded to J. Collins Warren, M.D., of Boston, for the best essay offered on the subject of "The Pathology of Malignant and Semi-malignant Diseases." A prize of $150 was also awarded for the best essay on the "Pathology and Treatment of Sunstroke," to Dr. Horatio C. Wood, Jr., of Philadelphia, Pa.

SPONTANEOUS DISLOCATION OF HIP DURING SCARLATINAL DROPSY. By JOSEPH SMITH, M.R.C.S.—H. T., aged 6 years, had an acute attack of scarlatina, followed by most severe renal affection. The dropsy was very general; the legs, scrotum, abdomen and face, being much swollen. The urine was highly albuminous, becoming solidified by heat and nitric acid. During this stage, he complained of great pain night and day in the region of the left hip. Shortening of the limb became evident, and at first it was thought that hip-disease had occurred. It, however, proved to be spontaneous dislocation of the femur, the head of the bone resting on the dorsum ilii. The dislocation could be easily reduced, but very shortly returned. Convalescence went on very gradually, and a stout leather case to lace up the thigh, with a band round the abdomen, was made by Best, of Birmingham, and carefully applied. The little patient improved, the bone remains in its proper position, and he very soon was able to walk well. At the time when I left Birmingham, he appeared to have regained perfect health.—*Brit. Med. Jour.*

ON SIMPLE DISLOCATION OF THE OS INNOMINATUM.—Mr. C. Holthouse, of Westminster Hospital (*The Practitioner*), reports two cases of this nature, which he has recently met with in his practice, and gives the notes of the only other cases, five in all, which had been previously published by other surgeons, in only three or four of which had the injury been diagnosticated during the life of the patient. Of the cases narrated, including his own, two were caused by falls from a height, one by heavy weights falling on the front of the pelvis, two by pressure and two by blows. In most of them the displacement was upwards and backwards.

The only accidents with which this injury is likely to be confounded are fractures of the pelvis, and of the cervix femoris. The method of measuring the degree of shortening from the iliac spine to the lower border of the patella will exclude the latter; the true character of the injury being indicated by the mobility of one side of the pelvis, and the absence of true bony crepitus. Five of the cases reported recovered with more or less laming. Mr. Holthouse considers a favorable prognosis warrantable, especially in the case of a young subject and when uncomplicated. There seemed to be no reason why, with moderate extension, manipulation, and a sustaining bandage, these cases might not have recovered with very little deformity.—*Med. Record.*

IMPROVED TESTS FOR SACCHARINE URINE.—Dr. Seegen's modification of Trommer's test consists in the preliminary filtration of urine through animal charcoal. This removes the uric acid and other matters which interfere with the action of Trommer's test, and leaves a colorless fluid, which is highly sensitive to the test. It is a delicate qualitative, but not a quantitative method.—*Brit. Med. Jour.*

PAMPHLETS RECEIVED.—Present State of Electro-Therapeutics. By A. D. Rockwell, M.D., New York.—The Duty on Books—Argument on behalf of the Book Trade Association of Philadelphia, before the Finance Committee of the Senate, May 23, 1872. By Henry Carey Baird. Pp. 10.

Deaths in seventeen Cities and Towns of Massachusetts, for the week ending June 1, 1872.

Cities and Towns.	*No. of Deaths.*
Boston	136
Charlestown	23
Worcester	28
Lowell	20
Milford	7
Chelsea	10
Cambridge	13
Salem	11
Lawrence	6
Springfield	5
Lynn	14
Taunton	8
Newburyport	4
Somerville	6
Fall River	17
Haverhill	2
Holyoke	7
	317

Prevalent Diseases.

Consumption	54
Pneumonia	25
Scarlet fever	22
Measles	15

There were twelve deaths from smallpox: eleven in Boston and one in Charlestown.

GEORGE DERBY, M.D.,
Secretary of State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, June 1st, 136. Males, 79; females, 57. Accident, 3—abscess, 2—abortion (criminal), 1—bronchitis, 4—inflammation of the brain, 2—congestion of the brain, 2—disease of the brain, 5—cyanosis, 1—cancer, 2—cerebro-spinal meningitis, 3—cholera infantum, 2—consumption, 24—convulsions, 4—croup, 1—debility, 2—dropsy, 1—dropsy of brain, 4—drowned, 1—erysipelas, 4—scarlet fever, 6—disease of the heart, 5—hæmorrhage, 2—intemperance, 1—infantile, 3—disease of the kidneys, 3—disease of the liver, 3—congestion of the lungs, 3—inflammation of the lungs, 9—marasmus, 4—measles, 6—old age, 1—paralysis, 1—pleurisy, 1—premature birth, 1—peritonitis, 1—pyæmia, 1—disease of prostate, 1—puerperal disease, 2—smallpox, 11—tetanus, 1—unknown, 1.

Under 5 years of age, 50—between 5 and 20 years, 19—between 20 and 40 years, 33—between 40 and 60 years, 15—above 60 years, 19. Born in the United States, 94—Ireland, 30—other places, 12.

THE

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Original Communications.

A METHOD OF DISCOVERING AND CORRECTING ASTIGMATISM.

By Cyrus H. Farley, Portland.

Every one who has investigated that class of deformities of the eye known as "anomalies of refraction," understands perfectly the nature of astigmatism. My purpose is not to present any new definition or theory, but to consider the mechanical means of discovering, measuring and correcting the defect. A brief explanation seems nevertheless to be a necessary preliminary to the discussion.

Astigmatism, then, results from an irregular curvature in the different meridians of the cornea. The normal eye may be regarded as a perfect sphere, and rays of light, as they enter the pupil, are bent inward uniformly by the curved surface of the cornea and crystalline lens, so that they meet at the retina on the opposite side. The rays coming to a focus at this point, produce a distinct image of whatever is before the eye. If we should move the retina forward or backward, the image would be dimmed or lost. The retina then must be exactly at the focal point, or what is equivalent, the focal point must be made to impinge upon the retina, to ensure distinctness of vision. A myopic eye is one in which the retina is too far back, so that parallel rays are brought to a focus in front of it. We are obliged to place before such an eye a concave glass that throws the rays outward, making them strike and pass into the eye at such an angle as will bring them to a focus on the retina. In the hypermetropic eye, on the other hand, the retina is too far forward, and the focal point behind it. The rays here pass into the eye too directly, and we use a convex glass to bend them inward and they bring the focal point forward to the retina.

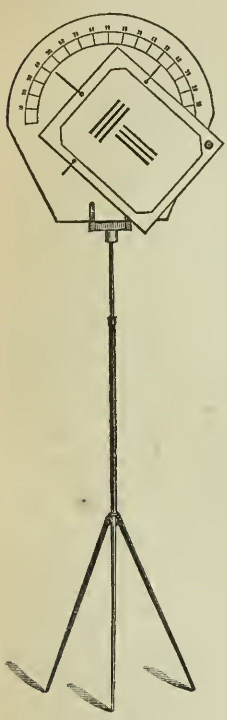
In astigmatism, the trouble lies in the cornea. In simple astigmatism, a part of the cornea occupies its proper position in relation to the retina, and a part does not, being too near or too distant; in other words, one meridian is myopic or hypermetropic, while the other is normal. Such a cornea, instead of having a spherical surface, like a segment cut from the periphery of a ball, has a cylindrical one, like the segment of a barrel cut longitudinally. Of course, such an irregular cornea cannot refract light equally in all meridians, and the consequence is that a blurred, indistinct image is formed.

Now in all cases of congenital astigmatism that can be fully remedied, the normal and abnormal meridians, or the meridians of greatest and least curvature, stand at right angles to each other. The rays of light, then, which pass through the normal (or nearest normal) meridian of an eye will give greater distinctness than those which pass through the abnormal meridians, and in order to ascertain if any meridians are abnormal or different from the others, black lines have been adopted as the best test.

Some of these lines, called "test circles," are arranged like the spokes of a wheel, so as to show at once which spokes coincide with the normal meridians. This figure is objectionable, because the difference between the darkest and lightest lines cannot be well defined, the intermediate lines shading away by imperceptible degrees and destroying the contrast between the extremes. I have frequently tried this test on cases previously examined and measured, and have found it to be altogether unreliable.

There is another and greater objection, which applies equally to all the ordinary devices for effecting the same object; the lines are too small. In measuring any deformity of the cornea, it is necessary that the object viewed should be at least twenty feet distant, so that the crystalline lens shall be kept perfectly flat. If the object is brought nearer, the accommodative power of the lens will neutralize any slight irregularity of the cornea, especially if the abnormal meridian is hypermetropic. But at a distance of twenty feet, the width of the test-lines, like that of the test-types, subtends an angle of one minute only; and while a line whose width is one minute, is visible, it is not, at the same time, distinct enough for this purpose. A series of such lines, separated by spaces of the same width, become so confused and indistinct, when held at a distance of twenty feet, that it is difficult to count them.

I have experimented a great deal on this point, and am fully convinced that in these faulty test-objects is to be found the chief reason why so many have failed to detect astigmatism where it really exists, and, as a consequence, have concluded that it is a rare deformity.



My experiments have resulted in the adoption of the following simple test-objects. I have three vertical and three horizontal lines, the latter placed above the vertical lines so that the combination resembles the letter T. These lines (which should be drawn with India ink, laid on very thick) have a diameter of four minutes at twenty feet, and are separated by spaces of the same width. Their length is four inches, though this is a matter of less consequence. The card is placed upon a stand, so that it can be placed at any angle desired, as shown in the illustration. The position is found which exhibits the greatest difference of shade between the two series of lines, and the inclination of the card indicates the inclination of the meridians of astigmatism. In all cases of astigmatism which can be relieved by cylindrical glasses, the meridians of least and greatest curvature stand at right angles to each other, and hence these lines running only at right angles exhibit the darkest and lightest shades exclusively, and bring them close together for contrast.

The necessity of placing the lines at a distance of twenty feet has already been indicated. The limit to the accommodative power of the crystalline lens can easily be verified by experiment. It will be found that an emmetropic eye can see much better at a distance of 20 feet through a concave glass than through a convex glass of the same power. A No. 30 concave glass will not interfere seriously with the sight at this distance, while a convex glass of the same power will obstruct it to a marked degree, showing that the lens has no power of contraction more than is required for accommodating the sight for twenty feet. When, therefore, the eye is obliged to look at an object twenty feet distant, the lens becomes flat and reveals any existing inequality of the cornea.

The process of examining an eye for astigmatism is as follows: Covering one eye by putting on the trial-frames containing a circular metal plate, we direct the patient to read the large test-types at thirty feet. He will say, perhaps, he can read P. T. S. R. (Snellen's fifty-foot type.) We try to improve the vision by placing before the eye concave and convex glasses successively, but all make the sight worse rather than better. We now direct his attention to the lines (at twenty feet), and ask him which of the series of lines is the darkest, the horizontal or the vertical. If he says there is no difference, we may be sure there is no astigmatism. But if he says, for instance, the horizontal ones are very black, and the perpendicular ones lighter, and the spaces between not so white, we know that astigmatism exists. Turn the card vertically, inclining the vertical lines to the right and left, to see if any greater difference in the shade is observed. When we have obtained the greatest contrast, we have determined the angle of the astigmatic meridians.

The next step is to measure the degree. Let us bear in mind that the horizontal lines were most distinct. Taking a No. 30 convex glass and holding it before the eye, we ask if it brings out the vertical lines more distinctly. If the patient says no, we are on the wrong track. So we take a concave glass of the same number, and place that before the eye. He says the vertical lines are more distinct, but not perfectly so. We have got now upon the trail, and we try one glass after another until we get one that makes the vertical lines as distinct as the horizontal ones were before. But in bringing out the vertical lines, we have obscured the horizontal ones; in fact, we have just reversed the condition and appearance of things. Having obtained the power of the glass which effects this reversal, we know at once the degree of the minus cylindrical glass which, held with its axis vertical, will neutralize the astigmatism. When all the meridians of the eye are abnormal (in one direction), those least so should be corrected by spherical glasses before we proceed to search for or correct the astigmatism. I do not approve the advice given by some writers, that when in the same eye one meridian is hypermetropic and the other myopic, the first should be remedied by a convex cylindrical glass and the other by a concave cylindrical. The hypermetropic meridian may be remedied quite as well by a spherical convex glass, and all the cylindrical curvature needed be added to the other side of the glass. This course becomes imperative if presbyopia exists, but I prefer it in all cases, as being more simple and reliable, and less expensive.

An eye which lacks acuteness in reading the test-types at the prescribed distance, though it may observe no difference in the shade of the test-lines, cannot be pronounced free from astigmatism until it has been tried with a convex lens of light power, lest the abnormal meridian be hypermetropic, and the accommodative power of the crystalline lens conceal the deformity. Yet any degree of astigmatism that would not show itself without this test, could not be very troublesome, and would not absolutely need correction. It becomes necessary sometimes to alter the axis of cylindrical glasses, so as to change the range of vision from the horizontal to the vertical and *vice versa*. Suppose a case of astigmatism, in which the vertical meridians are myopic. This must be corrected by a cylindrical glass with its axis horizontal. The eye has under these circumstances only a lateral range of vision, and when it is directed to an object above the head, or dropped below as upon a book or paper, the proper coincidence of meridians is disturbed, and distinct vision is lost. To correct this difficulty I have made the abnormal meridians of the eye the base, using a convex cylindrical with vertical axis, and then correcting the myopia which now exists in all meridians by a spherical concave. This gives the eye vertical range, though it diminishes the lateral range, but is much more convenient for reading or writing, as the eye can be moved naturally up and down in its socket, without destroying vision, while in the other case it must remain rigid, and the head must be bent forward or backward as necessity requires. In some cases, however (depending upon the form of the face), it will answer as well to have spectacle bows made with a joint in the shank, close to the frame, so that the glasses can be turned under the eye. I have arranged them in this way for draughtsmen, and others whose work obliges them to drop their eyes below the horizontal range.

All that I have said up to this point, I regard as essential to a clear understanding and accurate diagnosis of astigmatism. I will only suggest some apparatus which will be found convenient, but not absolutely necessary. Above the test-lines should be placed a semi-circle, marked with its 180 degrees, and having the extremes of the arc exactly opposite the middle horizontal line. Pointers should project from each end of the central horizontal line and from the top of the central vertical line upon the graduated arc, so that when the card is turned, the pointers will show the angle of inclination. The reason for having pointers for both series of lines is that we should be governed by the lines of least distinctness, for these should coincide with the axis of the glass, which is always marked. By determining, therefore, the exact angle of the meridians, we can place the cylindrical glass in the trial-frames at once, with its axis at the proper elevation.

Thus briefly have I endeavored to describe the devices for ascertaining the presence and extent and the proper correction of astigmatism, without using any of those elaborate illustrations whereby some writers have, I think, needlessly complicated the subject. I shall not expect any views of mine, which differ from the great authorities on this subject, to be adopted without first being put to a practical test, but I am convinced that if the rules here prescribed are followed, no case of actual astigmatism will escape detection.

Perhaps those who are constantly looking for a particular thing will most frequently discover it. I have found astigmatism to be exceedingly common, and by pursuing the method here suggested, have resolved many cases into this deformity, which had previously passed under the vague denomination of amblyopia or amaurosis.

Portland, March 5, 1872.

Lady Dentists.—The German papers state that a young lady recently presented herself at the Faculty of Medicine at Munich for examination for a license to practise as dentist, and, being refused, she went to Erlangen, and passed successfully.

A CASE OF GUN-SHOT FRACTURE OF THE FEMUR.

By H. W. Sawtelle, M.D., Washington, D. C.

Corporal E. G. A., 4th Indiana Battery, æt. 25 years, a healthy, robust man, was wounded at the battle of Stone River, Tenn., Dec. 31st, 1862, by a conoidal ball, which entered the left thigh, anteriorly, about four inches below the great trochanter, and, fracturing the femur, passed backward, making its exit about one inch below the gluteal fold. He remained on the field nine days (part of the time a prisoner), and subsequently he was in a hospital at Murfreesboro', Tenn., about four months; but the patient states that neither splints nor extension were ever applied to the limb.

He was discharged the service April 14, 1863, and pensioned. On September 1, 1863, the external wounds had healed, there still being, however, some tenderness at the point of fracture, and also about two inches shortening. As he further improved and began to use the limb with less care, he observed that it would rotate; and in January, 1871, he was able to shorten the distance between the knee and trochanter six inches, by means of a sudden swinging and extending motion of the limb, which appeared to throw the lower fragment to one side, followed by voluntary contraction of the muscles. In this position he was able to support his weight, 140 pounds, on the limb, and extend the same again to its former position by a sudden extension, or, as he described it, "a wriggle." In either of these mal-positions the thigh remained firm and inflexible. The patient was able to evert the left foot so as to place the heel at the toe of the right, thus placing the outer margin of the left foot in apposition with the inner margin of its fellow—these movements being accomplished without disturbing or moving the trochanter. The lower shaft of the femur appeared to slide along on the upper fragment on the anterior internal surface.

The upper and middle thirds of the thigh exceeded in circumference the corresponding portions of its fellow one inch, which is doubtless due to a large ensheathing callus which surrounded the lower part of the upper third of the femur, and which was distinctly recognized by digital examination. He walked with only a slight irregularity of step, but with great care. The patient stated that the limb was often painful, and that frequently he was obliged to suspend business, that of a laborer. During the winter of 1869, he was unable to walk without pain, and could not pull on his boot. I am inclined to believe, from what I learned of this man, that the great proficiency acquired of performing the marvellous contortions described, was the result of long-continued manipulation of the limb.

Washington, D. C., April 3, 1872.

A CASE OF BELLADONNA POISONING.

By Chas. W. Parsons, M.D., Providence, R. I.

A boy, aged 4 years, took, within an hour and three quarters, six grains of extract of belladonna by mistake for extract of lobelia, which had been recommended for croup. The doses were taken as follows: at 11 o'clock, A.M., 1 grain; at 11.15, 1 grain; then, as that did not produce the expected emetic effect, 2 grains were given at 12; and 2 grains again at 12.45. About 12.30, or before the last dose was given, some effort at vomiting ensued. Immediately after the last dose, belladonna symptoms came on suddenly, viz., stupor, swelling around the throat and jaws, great flushing of the face, and dilated pupil. The flushing extended to and even above the roots of the hair on the frontal region. It was difficult to rouse the child; he stared when awakened, and was hard to control, which I was told was not usual with him.

I first saw him at 1.45, P.M., an hour after the last dose had been given. His condition was as just described. He made wild resistance to anything done for him; if left quiet went off soon into a stupor. The heart was acting violently, beating hard, and more than 144 in the minute. Emetics of sulphate of zinc and ipecac were given with difficulty, and he vomited sparingly; no extract of belladonna was recognized in the matters vomited. Mustard was applied to the back and over the stomach; and he was kept from going asleep by walking him between two persons. The lips were dry, but there was no complaint of dry throat, nor any obvious difficulty in swallowing. The legs bent under him, so that he had to be held up to keep him erect.

In about an hour the symptoms had somewhat lessened; he kept awake a little longer, and I left him to procure my magnetic battery. On returning, a little after 3 o'clock, he could stand alone for a few moments, was very sleepy, and dropped off if left alone. He had illusions; saw visions on the floor, and talked nonsense. The pulse was 132. About this time he passed less than an ounce of dark-colored urine.

Through the afternoon he still had illusions; made queer grimaces; and his movements were tremulous and jerky. Little complaint of dry throat throughout.

At 6, P.M., pulse 112; has had no desire for food; mind still confused; some difficulty in micturition.

He was restless in the night, and saw strange visions, but recovered. Soon went to Maine, where, in a month after, he died of membranous croup.

Selected Papers.

ON THE TREATMENT OF DIABETES BY LACTIC ACID (CANTANI'S METHOD).

By George William Balfour, M.D., F.R.C.P.E.,
Physician to the Royal Infirmary, Edinburgh.

Towards the end of the last century (1796), John Rollo first propounded the theory that diabetes mellitus consisted essentially in some morbid change in the functions of digestion and assimilation, and conceived the idea of remedying this abnormal condition by cutting off from the food the supply of starchy matter from which he believed the sugar to be chiefly formed, employing also emetics, narcotics and tonics. Rollo thus laid the foundation of that system of treating diabetes which still prevails, which, mainly dietetic, consists also largely in the administration of tonics and narcotics. In France, this theory and treatment were adopted by M. Bouchardat (1841), who further showed that, for the complete conversion of starch into sugar, from seven to eight times its weight of water is required; thus accounting for the terrible and irresistible thirst of diabetic patients wholly irrespective of their excessive urination, which may be regarded as produced by the excessive ingestion of fluids rather than as its result.

The more important variations in the dietetic treatment of diabetes in recent times have been—1st. The use of alkalies, chiefly the carbonated alkalies, which is based upon Mialhe's theory (1843), that the sugar formed from the starchy articles of food in a healthy body is destroyed by the natural alkalinity of the blood, a property he supposed to be defective in diabetic patients. This theory has been shown to be wrong in every point, yet the treatment founded upon it has had a considerable amount of success. 2d. We have Reynoso's theory (1853), that the sugar in the blood of a healthy subject is burned in the lungs, and that it only appeared in the urine because of defective respiration; he therefore recommended a stimulating plan of treatment to increase the respiratory function; and the employment of the peroxide of hydrogen in modern times, as well as that of the permanganate of potass, is based upon this view of the origin of diabetes, which, although accurate enough in the fact that sugar does frequently appear in the urine of those whose respiration is impeded, is yet in so far defective that the development of grape-sugar into lactic acid, the first stage of its combustion, requires no oxygen. 3d. Claude Bernard's remarkable experiments (1848)—which seemed to prove the nervous origin of this disease, but which Schiff showed could not act without a liver, and acted mainly, apparently, by producing hyperæmia of that organ—gave a considerable impulse to the use of narcotics and nerve sedatives, especially such as opium, codeia and bromide of potassium, which so act upon the vaso-motor nerves as to reduce hyperæmia, all of which give considerable relief, and have had a certain amount of success. 4th. We have a modern return to the more purely dietetic treatment of diabetes in the employment of skim-milk as the sole article of food, a method of treatment which has been extolled by Dr. Donkin, of Sutherland.

Now, without entering more at large into the pathology of diabetes, it is obvious that these various modes of treating it are all underlain by one common fact, viz., that in diabetes the natural glycogenic function is discharged in a morbid manner, and that this morbid discharge of function may be importantly modified in two modes: 1st, by depriving the organism of that pabulum from which the glucose is mainly derived; and, 2d, by employing such remedies as are capable of altering the nervous energy of the organs at fault: practically it has been hitherto found of importance to conjoin these two methods.

The chemical treatment of diabetes by the attempted burning of the sugar by artificially induced hyperoxygenation of the blood, has not been found more successful than the simple dietetic plan without this addition, and for the chemical reason stated this could not be otherwise. While the basis of the other chemical treatment, that by alkalies, has been shown to be erroneous, the blood of diabetic patients being not less alkaline than that of others on the one hand, while, on the other, a fluid even more alkaline than the blood cannot decompose glucose, so that, if the alkaline treatment have really proved more successful than the simple dietetic plan, that must have depended on its exercising some modifying power over the function at fault—a modifying power, however, of so doubtful a character that it has not been able to prevent this method of treatment from falling, in this country at least, into comparative desuetude.

It is a matter of daily observation, that morbid alterations of function are frequently only to be permanently remedied by a restoration of the body to its normal standard, the great difficulty of promoting a cure in such cases being the impossibility of giving perfect rest to one organ while endeavoring to build up the frame, the skill of the physician being shown by the manner in which he solves this complicated problem, giving as much rest as possible to the organ at fault, while at the same time improving the general nutrition, and thus restoring the healthy tone to the constitution. It is in this respect that all the treatments hitherto propounded for diabetes have failed ; they may have given rest to the organ at fault, but they have too often depressed the general health, and, while giving temporary relief, have possibly in many cases hastened the end ; and even when a tonic treatment has been mainly relied on, it has failed for want of physiological adaptation. It is in this respect that Cantani's treatment is preëminently useful ; it relieves without depressing, it gives as nearly as possible perfect rest to the organ at fault, and at the same time builds up the body by an artificial adaptation of physiological means, and restores the healthy tone to the constitution, thus enabling it to return to healthy action. It is by no means put forth as a perfect cure for all cases of diabetes ; it is a means of relief to all, but only a cure for some ; yet it seems to act curatively in a larger proportion of cases than any other mode of treatment hitherto devised, while the relief to all is more perfect.

Prof. Alnaldo Cantani, of Naples, agrees so far with Reynoso in believing that in diabetes the question is not so much one of increased production of sugar as of defective combustion ; this he conceives to be proved by the small number of respirations made by diabetic patients and by their average low temperature, ranging, according to him, from 95° to 96°·8 F. in uncomplicated cases ; the temperature, of course, rising with any complication—such as tuberculosis—giving rise to pyrexia, but always remaining below the normal of such pyrexia. This defective combustion he believes to depend upon the production of a morbid form of glucose, which he has termed *paraglucose ;* this is incapable of being transformed into lactic acid, and therefore cannot be burned ; it is consequently passed unchanged in the urine. The result of this is, that the sugar and starch of the food being transformed into this incombustible paraglucose, the heat of the body is in so far maintained at the expense of the albuminates and fats, and from the combustion of the former we have that excess of urea which adds so greatly to the density in many cases of diabetes, while, as the albuminates and fats which the patient receives as food are insufficient for his requirements, those of his own tissues are also employed, and hence his rapid emaciation.

In the early stages of diabetes the quantity of sugar passed in the urine oscillates with the diet, and with an exclusively animal diet is much lessened in twenty-four hours, and may entirely disappear in a few days ; in the latter stages, when sugar persists in the urine even after the withdrawal of all amylaceous food, Cantani believes that not only the inosite of the muscles may be transformed into paraglucose, but also that the gelatinous tissues, which Baedeker succeeded in transforming into sugar apart from the system, may in this abnormal pathological condition become transformed into paraglucose, and thus account for the persistence of sugar in the urine of those fed exclusively on an animal diet, apart altogether from the question of the albuminates themselves being transformed into diabetic sugar. Thus, though all diabetics are to a certain extent autophagic, we may yet have this abnormality developed to excess, and may thus have three steps in this disease : first, that in which the sugar oscillates with the quantity of amylaceous food supplied ; second, that in which the inosite and gelatinous matter of the animal food are transformed into diabetic sugar ; and, third, when not only these but also the inosite and gelatinous matters of the body of the patient himself are so transformed—a most severe and hopeless form of autophagia. Cantani, with most modern pathologists, recognizes the liver as the organ mostly at fault in these cases ; but whatever the organ may be, he proposes to give it as complete a rest as possible, by depriving it of its pabulum in subjecting the patient to a rigorous meat diet, thus reducing to a minimum the introduction into the system of the sugar-producing substances. But as that is only a temporary expedient, having reference to only one element of this disease, and incapable of arresting the waste and ultimate complete degradation of the body, he further proposes to prevent this waste by supplying a combustible agent in a quantity sufficient for the wants of the body, so that the fats and albuminates may continue to be stored, and the body thus gradually restored to its normal standard; and he hopes that this restoration of the healthy standard of the constitution, coupled with the prolonged functional rest to the organ affected, may suffice to prevent any relapse into its morbid condition, even after a return to the ordinary dietetic conditions of modern civilized life. The results of Cantani's experiments have to a large extent proved the correctness of his views. The combustible agent which Cantani has selected is lactic acid, and it has been wisely chosen, inasmuch as it is in all probability that agent employed in the normal conditions of nutrition, representing as it does the intermediate stage between glucose and carbonic acid,* so that not only is a complete rest given to the organ at fault, but that very agent is supplied to the system which would have been normally present had the organ at fault been doing its duty after a normal fashion; so that, while as complete a relief as possible is afforded to the organ at fault, there is in no respect any abnormal strain put upon the system. The organ at fault is for the time being merely thrown out of gear, but all the other functions proceed in a natural manner, so that, when the normal tone of the organ has been reacquired, it may again be replaced in the natural cycle without the harmony of the natural sequence of the functions being in any way interrupted either by the cessation or the restoration of its function. The quantity of lactic acid which Cantani administers is from 77 to 154 grains daily, diluted in from 8 to 10 fluid ounces of water, and taken during the day. His exclusively meat diet means rigorously one of plain meat, roast or boiled, without any sauces of milk or eggs, and certainly without any bread, flour, or any vegetable matter whatever, the only seasoning permitted being salt, oil, and a little vinegar. For drink he allows water, either plain or with a little of the purest alcohol; coffee, tea, and wine being prohibited. His results have been somewhat surprising. In recent cases the cure is stated to be almost certain and speedy; and even where an exclusively meat diet is not persisted in, life is apparently prolonged, and many of the unfavorable results of diabetes are prevented, though the mellituria is not arrested. Dr. Sammut, of Naples, from whose report I quote,† states that he has seen an army lieutenant enter the hospital emaciated, weak, and impotent, with polyuria, thirst, and extraordinary hunger. In twelve days the last trace of sugar had disappeared from the urine, and in six weeks the patient had gained nine pounds. He left the hospital in excellent condition—florid, strong, without thirst or hunger; he continued the treatment for two months more at home, and then resumed mixed diet, and after the lapse of eight months he was in excellent health, and weighed twenty-one pounds more than when he entered the hospital, being also without a trace of sugar in the urine, though eating indiscriminately of all that came before him. A tailor from Naples was admitted in a desperate condition. He left florid and robust. Since then, for more than seven months, he has been eating promiscuously, and is more fat, rubicund, vigorous and energetic than before his attack. Dr. Sammut also states that he saw in Cantani's clinique several other diabetics—he mentions five—all much improved, and several believing themselves to be perfectly cured.

These results are certainly very remarkable, and, being a continuous series following the employment of a treatment based on rational considerations, are sufficient to claim the attention of every medical man interested in the progress of therapeutics. And I may remark that the latest treatment of diabetes propounded in this country—that by skim-milk—bears out Cantani's views in so far that it is a strictly animal diet, free from amylaceous matter, and containing three to six per cent. of lactin, which, under the influence of the caseous matter, becomes transformed into lactic acid. This treatment is therefore an approach, but a very meagre one, to Cantani's apparently more perfect system; and I may add that the results of the two systems in my own practice have fully convinced me of the greater applicability and more perfect success, so far as time allows me to judge, of Cantani's method.

This treatment is simple, physiological, and its results are certainly sufficiently remarkable to demand attention, being far before anything I have hitherto been able to attain by any other method whatever.

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* "What we have to do is to convert diabetic sugar—*i. e.* glucose—into lactic acid."—Headland on the "Actions of Medicines," 1867, p. 218.

* British Medical Journal, Feb. 25, 1871, p. 208.

The lactic acid I have employed has been that obtained from the druggist, fluid, not syrupy, of a spec. grav. of 1·027, and with the ordinary musty smell of sour milk. Three to four drachms in the day seem to be quite sufficient for all practical purposes; yet much more may be taken without detriment,* some cases occasionally taking as much as eight or nine fluid drachms in the day. The remedy is, however, as yet, rather too expensive to be employed in larger doses than are absolutely necessary, as it costs ten shillings a pound; a more extended application will, of course, cheapen its production.

The great advantage of this treatment is the prospect which it holds out of a comparatively speedy restoration to ordinary mixed diet, with persisting absence of sugar from the urine—of rapidity of cure, in short; and this rapidity is in itself a great encouragement to such patients steadily to persevere, in spite of the irksomeness of a diet rigidly restricted to meat, which seems certainly to be required for two or three weeks at least, after which fish, fowl, and green vegetables may be added, and other relaxations gradually and cautiously permitted, provided the case progresses favorably.—*Edinburgh Med. Jour.*

Reports of Medical Societies.

MASSACHUSETTS MEDICAL SOCIETY.

Second Day's Proceedings.

The annual meeting of the Society was held at the hall of the Lowell Institute on Wednesday, June 5th, at 10 o'clock, A.M. The President, Dr. Samuel A. Fisk, presided.

The Secretary's report of the last annual meeting was read and accepted. The Secretary read the names of fifty-eight new members and of twenty-two deceased Fellows.

Dr. Alonzo Chapin, for a committee of the Councillors appointed for the purpose, reported the following resolutions passed by the Councillors at their meeting in October last, and moved the concurrence of the Society:—

Resolved, That the Councillors of the Massachusetts Medical Society cordially welcome every wise attempt to raise the standard of medical education.

Resolved, That, inasmuch as the Faculty of the Medical School of Harvard University, undeterred by difficulties, or risks of personal sacrifices, have adopted a scheme of medical instruction, which has been characterized as the "boldest experiment ever tried in an American institution," and which places this medical school far in advance of any similar institution in the country—we, as Councillors of the Massachusetts Medical Society, and individually as members of the medical profession, will heartily and assiduously (in the language of the President of the University) "give the University the encouragement of our sympathy, the moral strength of our approbation, and the benefit of our advice to young men and their parents," that, as far as in us lies, this eminently wise and long-hoped-for improvement in medical education may be fully sustained, and ultimately prove a conspicuous success.

Resolved, That a copy of the foregoing resolutions, signed by the President and Secretary of this Society, be sent to the President of the University, to be communicated to the Faculty of the Medical School.

Dr. H. I. Bowditch said that in their present form, the resolutions did injustice to the Corporation of Harvard University, assuming that the whole credit of the new system belonged to the Medical Faculty, whereas, since the change, the corporation had taken charge of the financial affairs and risks of the medical school, and had incurred loss thereby. He did not wish to detract anything from what was due to the Faculty of the School, but he moved that the second resolution be amended so that just credit should be given the Corporation of the University.

After further discussion, in which it was shown that the personal risks and actual loss of at least half their former salaries had been bórne by the Faculty, no one objecting to commending the action of the Corporation, the resolutions, as amended, were unanimously concurred in by the Society.

The Treasurer's report was read and accepted.

The Secretary read the list of officers of the Society for the ensuing year.

It was voted that when the Society adjourn, it be to the first Wednesday in February next.

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* In particular, I have never seen any rheumatic pains produced; and if the acid be kept within proper physiological limits, it is impossible that they ever can be, otherwise we would all be rheumatic.

Dr. J. B. Treadwell read a paper on Prolonged and Excessive Physical Exertion in its relation to Cardiac Disease.

Dr. W. W. Morland read a descriptive paper on Health Resorts, particularly those in Florida and South Carolina.

Dr. John P. Reynolds read a report of his personal observations in the Lying-in Wards of Vienna, and exhibited the various obstetrical instruments in ordinary use there.

Dr. S. G. Webber exhibited a galvanic battery, the excellent features of which consisted in its portability, simplicity and power. He related some cases treated by electricity with favorable effect.

At 1 o'clock, the annual discourse was delivered by Dr. Thomas N. Stone, of Wellfleet. The address commenced with an allusion to the importance of the gathering to the members of the profession, and to the Society, as a body which was too lenient in chastening her wayward children. The message which he brought was "watch and wait." Progress was the pride of the day, and the charm of antiquity was broken. Any new departure in medicine, politics or theology wears the guise of progressive thought. Every year witnesses the birth of some new scheme of medicine. The question was whether all this boastful progressiveness was a real advance. From twenty-five years' experience in the bark-mill round of a country physician he had reached the conclusion that all active thought moves in circles. This law of circular motion controls theories and creeds and modes of thought. Every dogma and creed has its orbit. In the early history of the country medicine and theology were wedded together. They had firm faith in the infinite and none in infinitesimal. But modern thought had overthrown the old Puritan ideas, and sugar was now the staple article in theological and medical dispensaries. Nature cures both sin and sickness, and the priest and physician present nothing objectionable except the fee. An intelligent conservatism was the true basis of medical knowledge, but a conservative occupies no easy post in the onward time. The true army of medical progress, loyal to duty and truth, avoided the dangerous guide of extremists, and went slowly but steadily forward. The law of specifics had reduced medical science to a book of directions and a box of pellets. Progress in the department of therapeutics had been slow, but expectant treatment was yielding to rational treatment. Medicine was becoming a more positive *something*.

At the close of the address, which was received with much favor, and for which a vote of thanks was tendered the orator, Dr. George C. Shattuck, the President elect, was introduced, and announced that Dr. Miller, of Sheffield, had offered, through the Publication Committee, a prize of $100 for the best essay on Chemical Tests in cases of accidental poisoning, the conditions of the prize being that the essay should be really meritorious aside from its competitive excellence, and that the decision should be by the Publication Committee in accordance with established forms.

At 2 o'clock, the Society adjourned, to partake of the annual dinner in Music Hall, the Fellows to the number of nearly seven hundred passing into the hall according to their seniority. Music was furnished by Mr. Dudley Buck on the organ and by the Germania Band.

After grace had been said by Rev. Dr. F. H. Hedge, of Brookline, the chaplain of the day, an hour was pleasantly spent at the repast.

The Anniversary Chairman, Dr. R. M. Hodges, of Boston, then called the meeting to order in the following address:—

Mr. President and Fellows of the Massachusetts Medical Society:—It is not the duty of an anniversary chairman to make you an oration. He simply utters the congratulations prompted by the return of another annual gathering, and welcomes you to the dinner which lubricates the business of our anniversary meeting. This social custom, long counted one of the chief expedients for promoting the welfare of our ancient organization, brings to a profession in whose ranks few loiterers can be found, an hour of tranquil leisure, the grateful conviviality of which stimulates good temper, dispels discontent, and draws closer the bonds of an enlightened brotherhood. Who that takes part in these festivities can fail to be elated by the noble attitude of a society, the record of whose silent influence is written in so many private memories; is engraved on the walls of every public charity; is felt in countless contributions to science, and glows in acts of generous sacrifice for the country! This assembly, which is itself a pledge of the never-tiring zeal and unabated prosperity of our fraternity, cannot need even these few words of formal welcome. You will allow me, therefore, to offer, what is always the first toast on this occasion,—

"The Massachusetts Medical Society—The recognized embodiment of those liberal principles, that wise discernment and prudent counsel, which it is our vocation to cultivate and encourage."

Dr. George C. Shattuck, the president-elect, responded in an impromptu speech, referring to the honor bestowed upon him in electing him to the position of presiding officer, and expressing his determination to do all in his power for the promotion of the best interests of the Society.

The chairman then offered the following: "The welcome which has just been so heartily awarded to the president-elect finds a counterpart in the feelings of regret with which we release the retiring president from the responsibilities of office. Parting from us with the grateful remembrance of his dignified and judicious administration, he will carry with him the cordial good wishes of every Fellow of the Massachusetts Medical Society."

The response of Dr. S. A. Fisk to this sentiment was published entire in the last number of the JOURNAL.

The next toast was "The Commonwealth of Massachusetts—From the stormy days of the rebellion to the present time, we have been fortunate in having the medical and surgical affairs of the State entrusted to faithful advisers. Acknowledging this recognition of the patriotism and integrity of our profession, I am sure you will be gratified by my presenting to you his excellency, Gov. Washburn."

Gov. Washburn responded. He thanked the Society for the opportunity of mingling with so honorable and respectable a body of men as the medical profession, to whom the Commonwealth was so much indebted. Whatever is done to advance the science in which they were so deeply interested, whatever tended to promote the interests of the organization, all, as citizens, were interested in; for whatever might be the public feeling towards any other profession, people always had and always would have a respect for that of medicine, and liked to have a good physician, of high culture and high attainments, always near them. There was an interest which centred around the profession in its progress, its new attainments and victories, which could not be felt towards any other body of men. It was sometimes said in regard to Massachusetts that so far as position was concerned in the sisterhood of States, she was losing her influence year by year, but he for one felt that the power of any State, like the power of any community, did not depend simply upon numbers, but upon the character and the principles and the culture which composed it. He for one was almost willing that Massachusetts should take the background numerically, provided that Massachusetts men built the railroads of the country, Massachusetts capital developed the trade and industry of the nation, and Massachusetts brains founded the educational system, furnished the school-teachers and built up the noble men and women of the West; for so long as she did that she would exert a great influence over all the land. In conclusion, Gov. Washburn referred to the progress that the medical profession had made of late years, and contended that the State had an especial interest in anything that had a tendency to elevate and ennoble it.

The chairman next proposed "The health of our absent member, Dr. Jacob Bigelow, the Nestor of our Boston physicians. Always remembered as the wise teacher, the faithful practitioner and the stanch opponent of charlatanry; long may he continue to be surrounded by the 'honor, love, obedience, troops of friends,' which have accompanied a lifetime that is still prolonged in unperceived decline."

"Auld Lang Syne" by the band.

"The Clergy of Massachusetts—The trusted and friendly counsellors of both physicians and patients; whose province it is to search the mysteries of our being in the sublime relations of life and death, and whose ministrations cheer the afflicted and comfort the dying."

The Rev. Dr. Hedge, of Brookline, responded. He feared that medical men would not accept from the clergy—however much they might be tempted to offer it—counsels other than spiritual. To give counsel was the business of both professions, but doctors managed more warily with theirs than did the clergy, for they did not give it until it was asked for. But there was a difference between the two callings in one respect—that whereas the recipients of the counsels of the clergy were called hearers (to distinguish them from doers), those who received advice from physicians were called sufferers, and he for one could testify to the correctness of that designation in times past. The two professions had some points of contact—they enjoyed in common the confidence and good will of the community; yet on the other hand some hard things were said of the clergy by some, as that they subsisted on the evils and woes of society, that they failed to follow their own prescriptions, and that they had undue influence with the other sex. As to the last charge, he would say that from present indications the other sex seemed likely to take the obnoxious influence into their own hands. Another point of resemblance between the two was the trouble they experienced in common from the false pretences and illegitimate methods of a class of practitioners known in the medical vocabulary as quacks, for both professions were infested with them. Elsewhere they were shunned by the public, but in religion and medicine they were tolerated and even encouraged and welcomed. People who were shrewd to detect imposture or insufficiency in the market or shop, took to them kindly, and seemed to prefer them to matters genuine in physical or spiritual health. He asked a sick man in whom he felt a professional interest if he had good medical advice, and he had readily assured him that he had consulted the best trance mediums in Boston, and he was faithfully following their prescriptions. And he did faithfully follow them, added the speaker, and was faithful unto death. He would not use the word quack to dedote an uneducated teacher, in the common sense of education. A preacher may not be a graduate of college or theological school, but he may have a prophetic vision, an apostolic calling, which were better than all learning. The quack in the pulpit was the man who without theological learning, or spiritual insight, or philosophic thought, or even genuine devotion, adopted the profession on the strength of certain rhetorical gifts, and whose highest test of success was rhetorical success. Such men did religion more harm than its avowed enemies. He often saw the term quack used in the medical profession as synonymous with empiric; that was a great mistake, for the profession, especially in the department of therapeutics, was greatly indebted to empiricism, and in fact was solely dependent upon it. The quack in medicine he took to be him whose practice was founded on no true knowledge of the human frame, and the laws which govern it, and who, ignorant of the laws of anatomy, of physiology, and of every branch of medical science, advertised infallible cures, undertook the healing of diseases of which he knew nothing but the name, and who obtained his patients by dint of sheer, impudent self-assertion. Nothing that had been said or could be said of such men was too severe, and certainly the educated physician was called upon in self-defence to refuse all fellowship with them, and all recognition of such as professional peers. But he urged all educated physicians not to apply the term indiscriminately, but to respect honest and faithful investigation, and scientific minds, where even the theories of others conflicted with their own, and where it was impossible to work in conjunction with them. He rejoiced at the opportunity offered him of expressing his profound respect for the medical profession, whose duty it was not only to minister at the sick bed, but to carry forward the conquests of that science which worked relief to man's estate.

The next toast was "The Orator of the Day," and to this Dr. Stone responded by reading a poem entitled "The Cause of Rip Van Winkle's long Nap."

The secret of the Dutchman's somnolence was discovered by a Yankee, who searched under Rip's tattered vest,

> "And there he found—no mighty dose
> Of powder or of pill,
> But vial small, and on its cork,
> *Decillionth Pulsatill.*"

Dr. S. L. Abbot responded to the toast:—

Practical Medicine—A science older than civilization, powerful for good or for evil, and rich in the fruits of a good conscience to its honest votaries.

The chairman then proposed a toast in recognition of the medical corps of the army and navy: "A high standard of qualification, proved by examination, is now the rigid demand of our medical school. But the army and navy long ago learned that this was the only method to secure a staff of medical officers equal to the necessities of a time of peace as well as war. To follow their illustrious lead is to keep step with progress. We recognize the influence of their example as cheerfully as we eulogize their unfailing self-sacrifice." Brevet-Lieutenant-Colonel Warren Webster, surgeon United States Army, responded as follows:—

Mr. Chairman—It is not often the good fortune of a medical officer in the Government service to enjoy such a festival as this, or his misfortune to be called upon for a speech in the presence of a Society so learned and vigilant as yours. The routine of life at frontier military posts is not favorable to the cultivation of the studied contrivances of speech. But despite our isolation and dispersion, we are proud to remember our association with you of civil life, in a common profession and a common mission. Have we not the same early teachers? are we not strengthened by the same literature? and do we not revere the same fathers of medicine? Our duties in army life differ little from yours in civil life. Our patients, be they soldiers, their wives and children, or officers and their families, are not exempt from ordinary diseases and injuries. Except in war, our distinctive title of surgeon is a misnomer; and even in campaigns the current ailments that claim the attention of the medical officer fall more largely to the domain of the physician than of the surgeon. To that extent needed professional knowledge is derived from medical rather than from surgical observation and experience. How completely, Mr. Chairman, has the "tide of things" reversed, in military life, the relation of these two branches of our science. In the dawn of modern army organization, professional duty was limited to the arrest of hæmorrhage and the dressing of wounds. The only resource of the sick soldier was to drag himself from the line of march or the camp, and seek such precarious shelter and treatment as private or monastic charity would extend. The sovereign based his action upon an economic principle, as false as it was unchristian, that "it cost more to cure a soldier than to levy a recruit." Unable to provide for his treatment and insure his restoration to duty, and generally ignorant of his place of retreat, the army lost him forever. In this manner at the siege of Rochelle the want of adequate medical and hospital provision for the soldiers of Louis XIII. necessitated in the brief space of a few months three complete renewals of his army. With the establishment of hospitals came military medicine, and then the victims of disease and miasmatic infection received coördinate care with the sufferers from wounds. Later, the beneficent laws of hygiene revealed themselves, and physician and philanthropist, within and without the Government employ, joined hands in the presence of this blessing of science. The intelligent soldier, who so rudely but surely learned during the late war that personal uncleanliness, foul air, dampness, badly policed camping-grounds, inadequate clothing, bad cooking, and intemperance in food or drink, all are the precursors of disease, returned to the pursuits of peace a convert to the truth which sanitary science now labors to introduce into private life. The treatment of wounded soldiers under trees nearest where they fell and the segregation of the diseased in tents or rude shelters, where they recovered in greater proportion than those lodged within ceiled walls, not only taught the representatives of our profession in civil life a significant lesson, but furnished the germ of the American pavilion hospital system, which is winning commendation and adoption over the civilized world. If I were permitted to speak of another of the bright links that are binding in stronger and stronger unity the military and civic branches of our profession, I might allude to those contributions of American medical and surgical science which Gen. Barnes, the head of the Army Medical Bureau at Washington, is giving so abundantly to this country and to Europe.

Mr. Chairman, I have been a delighted listener to the eloquence of this festival. In the future roving of a soldier's life I shall look back to this occasion with unalloyed pleasure; and especially if you will allow me to offer the following sentiment:—

The members of this Society who volunteered as medical officers in the armed struggle for the maintenance of this blessed Union of States! May an enlightened public opinion clearly appreciate how much of individual life and of public treasure they saved to this Commonwealth!

A sentiment referring to "Amherst College" called up Prof. Edward Hitchcock, of that institution, who spoke particularly of the physical culture in that college, and the necessity of medical scholarships in the institutions of learning for the benefit of poor medical students.

Dr. George W. Garland, of Lawrence, responded for the doctors of Essex County.

Dr. Pineo, of Hyannis, spoke for the "country practitioners."

At 5 o'clock, the exercises came to a close.

Medical and Surgical Journal.

Boston: Thursday, June 13, 1872.

THE MASSACHUSETTS MEDICAL SOCIETY.

The recent anniversary gathering of the State Medical Society was an occasion of exceptional enjoyment. As compared with many similar meetings in former years, it must be recorded as unusually successful. The weather on the second day was very inclement, but the number of Fellows in attendance did not fall short of, but rather exceeded that at previous anniversaries; and we were especially pleased to observe so many of the older representatives of the profession present to do honor and lend dignity to the occasion.

The routine of exercises followed the recently improved programme. The scientific papers presented were fully up to the recognized standard of the Society's publications, and provided a judiciously varied literary entertainment on important medical topics. The oration of Dr. Stone, of Wellfleet, gave special pleasure to his large audience. It was a sincere and eloquent appeal for a progressive and rational conservatism in medical science, showing earnest study and discriminating insight into the many scientific theories which are threatening old methods of thought, and an honesty of conviction and a logical clearness which gave the address peculiar force. Withal, there was an originality of expression and a touch of humor which served as excellent adjuvants to the arguments and saved the discourse from that didactic seriousness which often characterizes annual addresses, and from the heaviness which sometimes would seem to justify Harvey's quaint appellation of "solemn oration," applied to similar discourses. In thus infusing something of the vivacious into his production, we think Dr. Stone appreciated the social purpose of the annual meeting, and recognized the fact that to the majority of those who come from year to year to enjoy this anniversary it is a real relaxation, one of the very few seasons which the physician in Massachusetts appropriates for his own personal recreation.

Our detailed report of the Society's proceedings will show that the session came to a very happy conclusion. The Music Hall festivities were worthy of the occasion. The after-dinner speeches, whether of the distinguished guests who honored the Society with their presence, or of those who, as members, responded to appropriate toasts, were an intellectual entertainment which it was no ordinary privilege to enjoy. While refraining from comment on special addresses, we may be permitted to remark that the speech of the retiring President, Dr. Fisk, a full report of which we printed in our last number, gave particular satisfaction as a dignified, seasonable and authoritative exposition of the position of the Society concerning certain matters which are of the deepest interest and importance to all its members.

Those of our readers who witnessed the dignified bearing, and who heard the felicitous speech of welcome and the well-turned toasts of the Anniversary Chairman, will hardly need to be reminded how fortunate the Society was in the appointment of that officer.

Perhaps the most conspicuous feature of this annual gathering was the harmony which prevailed from beginning to end. In the business proceedings, as well as in the social exercises, there was a degree of unity and fellowship manifested which must have been particularly gratifying to those who desire to see our time-honored Society the consistent exponent of true medical progress. The elements of discord, if any were present, were in complete abeyance, from the evident determination of the Society that the objects of its meeting should not be interfered with; showing, moreover, to even the most superficial observer its strength and inflexible purpose.

Two subjects of importance particularly tested this spirit of fellowship, and, moreover, gave a distinctive character to the session. We refer to the concurrent action of the Society in unanimously confirming the resolutions of the Councillors in support of Harvard University with reference to a better course of medical study, and the hearty and unequivocal response elicited by every allusion to the pending measures for the extirpation of "exclusive dogmas." The reception accorded to every reference to the Society's action during the year on this latter subject was no doubtful sign of the animus of the Fellows, and the younger members of the profession in Massachusetts, who for a time bore the honorable odium of having "precipitated" the Society into impolitic measures, may now congratulate themselves that they are supported by the great majority of an Association which is pledged absolutely, for the sake of its own honor and integrity and for the cause of medical progress and reform everywhere, to carry out its intentions with a will and with a unity unmistakable. To this end, the repeated demonstrations of the meeting bore no uncertain meaning, and we may add, moreover, that the election of such executive officers as those upon the new list is a significant intimation that the Society is not indifferent to its vital interests.

We cannot conclude without felicitating the meeting on the perfect arrangements which were made on every hand for the comfort and enjoyment of those present. Great credit is due the Committee for perfecting all the details whereby many of the annoyances of former gatherings were avoided. The attention to these matters contributed much to make this annual meeting one of the most dignified and successful the Society has ever had ; and some of the innovations, as, for example, the passing in to dinner according to class-seniority, must especially commend themselves to good judgment.

IS VACCINE LYMPH CURATIVE AS WELL AS PREVENTIVE ?—We find in the *Lancet* for May 25th ult., a communication which appears to open to view a new field in the discussion of the beneficence of vaccination, and which indicates that, under certain conditions, the vaccine lymph may be curative as well as prophylactic of variola. In this communication, Dr. Furley, of Edinburgh, describes his method of operating, and cites cases in his own experience to show that smallpox may actually be aborted by vaccination *after the variolous eruption has appeared.* Success, however, appears to depend greatly on the amount of virus exhibited and on the manner of its introduction to the blood. Dr. Furley thinks that he found that the ordinary method of vaccination, by scarifying the arm, is inoperative to modify the disease in adults, although it will sometimes be effectual in children. He accordingly used the subcutaneous method, at first injecting the lymph with the ordinary hypodermic syringe ; but, subsequently, on finding that this process occasionally failed, by means of a hollow needle with a bore sufficiently large to admit a tube of virus. By this latter method the point of the needle is introduced " beneath the skin " and the lymph is blown, he says, from the tube " directly into the blood."

Three cases are reported in which the treatment by vaccination gave good results, the cases being selected indiscriminately from about sixty similar ones. In one, a baby aged one month, unvaccinated, the papular eruption was over the face, hands and legs. Ordinary vaccination was practised, and in twenty-four hours the eruption had disappeared, except two papules on the face. On the third day these two papules had disappeared and a crop of four-and-twenty developed, chiefly on the head. In three days, these had gone. The vaccination itself showed no signs of taking till the tenth day, and was matured on the thirteenth.

In a second case, a girl aged 13 years, vaccinated in infancy, appeared with the papular eruption on the hands and forearms. Two tubes of lymph were injected into the forearm. After three days, there was " nothing to be seen but the inflamed areola " at the point of injection.

Case three was an adult, unvaccinated. Two tubes of lymph injected on the second day of the variolous eruption modified the disease so that a probable confluent form became discrete, and desiccated on the ninth day. There was no areola at the point of injection.

The treatment by vaccine-lymph injection is more effectual, according to Dr. Furley, the earlier it is practised, and it is more successful in the youthful than in the adult period of life. Five unfavorable cases out of sixty are reported, in three of which the prognosis was bad from the beginning and in two death was unlooked for.

We regret that Dr. Furley does not describe more particularly the method of his injection of lymph—to what depth the needle is introduced into the tissues, and whether the lymph is all injected into a single puncture. It would also be interesting, in view of certain recent experiments in hypodermic vaccination, to know more in detail the appearances presented by the vaccination itself, *as modified by the method resorted to*, or *by the variola*, or by other unusual conditions present in such cases.

EMBOLISM A POSSIBLE CAUSE OF TETANUS. —In a contribution to the *Detroit Re-*

view of Medicine and Pharmacy, Professor McGraw traces the possible relationship between tetanus and the existence of embolus. Basing his views on the evidence of a single case in which the two conditions were concomitant, the writer intimates that, in the absence of positive pathological changes which can throw any light on the etiology of tetanus, no mere *a priori* considerations would lead us to doubt that the disturbance, caused by embolism when affecting certain vessels of the medulla oblongata or spinal cord, might cause tonic contraction of the muscles, and might end in death, without involving the mental powers or inducing paralysis; the origin of the embolus being a thrombus from an inflamed vein near the wound.

Milk as a Diet During Lactation. By R. P. Harris, M.D., Pennsylvania.—From a series of trials which I have very successfully made, I have become convinced of the great value of milk as a food for delicate mothers who desire to nurse their own children. By the term "delicate" I do not mean those actually diseased, or apparently inclined to tubercular or other serious organic affections, but a large class of American women in the higher walks of life who fail as nursing mothers, either because their milk is too small in quantity or deficient in nutritive elements. Such women are generally below their proper average in weight; have little, if any color in their cheeks, and eat but a moderate amount of food. There may not be any deficiency in the development of their mammary glands, although their mammæ are usually smaller than they should be; but this is chiefly due to the absence of adipose deposit. All such subjects do not bear a milk diet well; and in such the plan must be abandoned, as the diet should not only agree with the mother, but be palatable, so as not to diminish her appetite for her ordinary diet. She should be able to eat her three meals as usual, and consume the requisite amount of milk in addition. There are many women who have lost all their childhood's relish for milk, just as there are sometimes young children who do the same thing, and cannot be made even to try its efficiency. And there are others who are anxious for success, and do make the trial faithfully, but are reluctantly obliged to discontinue the diet in consequence, not of any disrelish, but of an inability to digest it.

Happily, there are also many who not only like the taste of milk, and can continue its use indefinitely, but who experience a wonderful degree of benefit from it, not only being able to nurse their infants, whom they would otherwise have to give to a wet nurse, or raise by hand, but greatly improved in health and strength, gaining flesh, increasing in appetite, and avoiding the ills resulting from the drain upon their system, so commonly experienced after a few months of lactation.—*Richmond and Louisville Medical Journal.*

Dr. Verneuil on Tracheotomy by Galvano-Cautery.—In the Academy of Medicine, April 23d, M. Verneuil observed that tracheotomy, as usually practised, is a dangerous operation on account of the hæmorrhages, which are so difficult to be avoided, and on account of the introduction of air into the veins. In the case of a patient, aged 38, nearly asphyxiated from tuberculization of the larynx, Verneuil performed tracheotomy by the aid of galvano-cautery. The point of the knife was heated to a dull red, and entered at the level of the cricoid ring. The instrument, moderately pressed, and slowly cutting, easily penetrated the skin for about a length of three centimetres. The knife, again heated, was carried again to the upper part of the wound, and then brought slowly down, dividing the aponeurosis and separating the thyro-hyoid muscles. A third time the knife was used in the same manner, cautiously and slowly, and then two assistants pulling the wound asunder by hooks, the eye and fingers could easily perceive the cricoid cartilage and upper rings of the trachea, which were naked and almost as visible as upon the subject. The cartilages of the two first rings were then divided by the heated knife. No blood was spilt during the operation. The operation lasted some six minutes. The patient did well, and ten days after the operation the tube was removed.—*Dublin Medical Press and Circular.*

Extraordinary Fecundity.—Dr. Edward Mason reported, at a late meeting of the Elmore Medical and Surgical Society, Wetumpka, Ala., a case in which "a lady bore seventeen children in nineteen years, twice giving birth to twins," and once producing four children at a birth. The latter died, but all the other thirteen survived.—*Amer. Practitioner.*

Medical Miscellany.

Prize Essays.—The Committee of the American Medical Editors' Association, appointed on a proper subject for prize essays, have recommended the following for the prize to be awarded in May, 1873:—

"The Pathology and Treatment of Diseases of the Ovaries."

And the prize to be awarded in May, 1874, the following:—

"At what stages of Pulmonary Tuberculosis is a change of climate desirable; what are the principles which should govern us in choosing the kind of change to be made; and the best localities in North America to send patients of this class?"

The prize offered is $100, and competition is open to all medical editors.

The Havana Medical Students who were imprisoned and threatened with death for alleged desecration of a cemetery, have been released by government orders.

Brown Windsor Soap.—The ordinary old brown Windsor soap of commerce is not, it is stated, the purified soap, colored with caramel, which made the title famous, but brown and imperfectly defæcated bone-grease, which retains its dark color and of which the bad odor is concealed by perfume. A gentleman, writing under the initials "W. W.," in *Nature*, gives the following account of its effects:—

"I have, while using such shaving soap, thrice suffered from eczema of the face. On the first occasion, I derived no benefit from treatment by the two most celebrated dermal surgeons in London; and at last the disease went away of itself, after giving up shaving for a time. I had by me a quantity of this brown soap, and, through inadvertence, took to using it again, for a time without effect; but when dry and hot weather came, with it came a recurrence of the skin-disease, which also again, after some months of discomfort, went away. Curious to make sure whether or not the soap was the real cause, I a third time employed the soap deliberately to see if the eczema were due to it. I was in excellent health, and in about three weeks I found the disease re-established, so that I think the soap must be viewed as found guilty. Good white unscented curd-soap is now my resource, and with no ill-effects.—*Brit. Med. Jour.*

The Uses of the Uvula.—In an article discussing the anatomical relations and the functions of the uvula (*Lancet*, Feb. 10th, 1872) Sir Duncan Gibb summarizes the latter as follows:—

"1. It acts as a sentinel to the fauces in exciting the act of deglutition when anything has to be swallowed. 2. It compresses the soft palate and holds its posterior free border firmly against the wall of the pharynx in deglutition, so that nothing can pass upwards. 3. It modifies speech in the production of loud declamation and the guttural forms of language by lessening the pharyngo-nasal passage when it acts as an elevator. 4. Its elevating power is increased to the most extreme degree in the highest ranges of the singing voice, and is very moderately exerted in the lower ranges. 5. Therefore in its uses, deglutition and vocalization are the functions that are intimately associated with the uvula, and both become impaired more or less if it is destroyed, wholly removed or seriously injured."—*Half-Yearly Abstract of the Medical Sciences.*

The Medical Education of Women.—Miss Jex-Blake delivered a lecture to a large audience of ladies and gentlemen in St. George's Hall, London, on the Medical Education of Women, but chiefly with reference to the events which have created so much attention in their attempt to secure medical education at Edinburgh. Lord Shaftesbury was in the chair. The lecturer treated her subject in a clear, temperate and concise manner, and was frequently applauded.—*British Med. Jour.*

Correction.—In the Journal for June 6th, page 362, for "bulleaux" read *bulleux;* and on page 363, line 33, for "marked" read *masked.*

To Correspondents.—Communications accepted:—A Case of Belladonna Poisoning.—A Case of Peritonitis with singular Complications.—On the Value of Alcohol as a Nutritive Agent.—Contributions to Practical Surgery.—A Case of Scalping.

Pamphlets Received.—The Teeth—Natural and Artificial. By J. W. White, Philadelphia. Pp. 36.—Observation tendant à démontrer l'Efficacité de l'Emploi du Sulfate de Quinine, comme Succédané du Seigle Ergoté. Par M. le Docteur Bouqué, Membre Titulaire.

Died,—On board steamship New York, *en route* to Bremen, Dr. John Dole, of Amherst, Mass., aged 33.

Deaths in fifteen Cities and Towns of Massachusetts, for the week ending June 8, 1872.

Cities and Towns.	*No. of Deaths.*
Boston	130
Charlestown	7
Worcester	19
Lowell	15
Milford	4
Chelsea	4
Cambridge	18
Salem	12
Lawrence	7
Springfield	2
Lynn	9
Fitchburg	2
Taunton	3
Newburyport	7
Haverhill	3
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Prevalent Diseases.

Consumption	50
Scarlet fever	20
Pneumonia	15

Boston reports five deaths from smallpox.

George Derby, M.D.,
Secretary of State Board of Health.

Deaths in Boston for the week ending Saturday, June 8th, 130. Males, 62; females, 68. Accident, 4—abscess, 1—apoplexy, 1—asthma, 1—inflammation of the bowels, 3—disease of the bowels, 1—bronchitis, 3—inflammation of the brain, 1—disease of the brain, 11—cerebro-spinal meningitis, 3—cancer, 2—cyanosis, 3—consumption, 23—convulsions, 6—debility, 2—diarrhœa, 1—dropsy, 1—dropsy of brain, 4—diabetes, 1—diphtheria, 1—erysipelas, 1—scarlet fever, 8—typhoid fever, 1—disease of the heart, 1—hæmorrhage, 1—jaundice, 1—disease of the kidneys, 2—disease of the liver, 1—congestion of the lungs, 3—inflammation of the lungs, 6—marasmus, 5—old age, 3—paralysis, 2—pleurisy, 1—puerperal disease, 1—pyæmia, 1—quinsy, 1—rheumatism, 2—scrofula, 1—smallpox, 5—syphilis, 1—teething, 1—tumor, 1—whooping cough, 2—unknown, 5.

Under 5 years of age, 49—between 5 and 20 years, 10—between 20 and 40 years, 33—between 40 and 60 years, 26—above 60 years, 12. Born in the United States, 89—Ireland, 33—other places, 8.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

New Series.] Thursday, June 20, 1872. [Vol. IX.—No. 25.

Original Communications.

CONTRIBUTIONS TO PRACTICAL SURGERY.

By John P. Mettauer, M.D., LL.D., of Prince Edward C. H., Virginia.

Stricture of the urethra at nearly every period of the history of medicine has been regarded with profound interest by the profession. Mr. John Hunter, however, was the first to appreciate its character with approximative just views of the nature and treatment of the disease, and although some of his methods were harsh, and occasionally virtually unsuccessful, he seems to have given an impulse to investigations which, in more modern times, have rendered it quite easy of treatment as well as fortunate in results.

For many years the writer has paid particular attention to the disease, during which time numerous cases were treated by him, all of which were carefully studied and subjected to the most rigid and careful scrutiny. In a very large majority of the cases treated, the strictures were very close, and many of them penetrated with much difficulty, even with the instruments best adapted to such conditions; and out of more than two hundred examples he has met with only four which could not be penetrated; and as these cases required a peculiar mode of treatment, which he presumes to denominate the rapheo-perineo-urethral section, this paper is designed to report them to the profession.

Case I.—M. Y., the subject of this case, was a farmer, æt. about 30, who had enjoyed excellent health down to the time he became strictured, when it seemed somewhat impaired, but not enough so to confine him to his room or even to unfit him for his ordinary avocations. The stricture had existed upwards of two years before the writer was consulted, but only in a slight degree until three months before the writer treated the case, at which time it began to close the urethral passage with considerable rapidity, seeming to render micturition more and more difficult daily; and when the suffering man arrived in my neighborhood he could only urinate by drops. A critical examination of the urethral passage disclosed the existence of an exceedingly close stricture in near proximity with the membranous portion of the canal. Many and varied trials with bougies, catheters and probes failed to penetrate the stricture; and the difficulty in discharging the urine threatening retention, it was determined to cut down upon the stricture, through the perinæum, along the rapheal line, which was done in the following manner on the 11th of August, 1836.

The patient was placed on his back, resting upon a common dining table covered with folded blankets, as in lithotomy. The feet and legs were held and supported by an assistant standing on each side. A female sound, well oiled, was first entered at the meatus and carefully passed down to the stricture, with the hollow of the curve to the symphysis, where, after gentle probing movements, to determine that it could be carried no farther, the hollow curve was turned from the symphysis, so as to render its entered extremity prominent in the perinæum, and so held by an assistant. An incision was now made through the perinæum along the rapheal line down upon the extremity of the sound, which allowed the end of that instrument to appear through the wound. A grooved director of small size was next entered and passed on to the extremity of the sound in the urethra, the latter instrument being simultaneously partially withdrawn, to make room for the director, which was made to follow it about an inch. With the groove of the director to the rapheal line, and a sharp-pointed narrow bistoury directed by it, the urethra and perineal strictures were laid open fully an inch, which, after the blood was cleared away, brought into view an exceedingly minute opening, rendered more clearly distinguishable by the passage of a few drops of urine, situated on one side of the urethra, and fully three lines above the bottom of the cul-de-sac. This orifice was now dilated with the point of the bistoury so as to allow the director to be introduced, which entered readily, and was carried quite into the bladder, and upon it, by rotating it, the stricture was divided on four sides. Removing the sound and director, and sponging away the blood, a No. 12 gum-catheter, well oiled, was introduced from the meatus through the divided stricture quite into the bladder, which, after closing the perineal wound with sutures of leaden wire deeply inserted, completed the operation, with the exception of adjusting and confining the catheter in the urethra and bladder, washing out the vesical cavity with cold water to cleanse it of blood, and adapting a stopper to the catheter to prevent accidental discharges of urine. The patient was confined in bed until the perineal wound healed, cold-water dressings were employed to the wound by the use of compresses, the bowels not allowed to be disturbed for four days, and a diet of liquids was enjoined. The wound healed in a great degree by the first intention, but the ligatures were suffered to remain until a fresh tube was introduced, on the twelfth day. In three weeks the patient had recovered entirely, and without a single untoward occurrence, and is yet alive, a hearty old gentleman of over 65 years of age.

Case II.—M. D., æt. about 28, of rather delicate constitution, of slender person, free habits, and a tailor by profession. Early after puberty he contracted a terrible gonorrhœa, and either from bad management or imprudence his cure was tedious. Soon after recovering from his attack of gonorrhœa he married, and for a year or more his habits were less dissipated, and his health somewhat improved; yet he was an infirm man, and often complained of his urinary organs, especially in regard to unpleasant sensations in urinating, with increased desire to evacuate the bladder, and a perceptible diminution of the volume as well as force of the stream. At length the case assumed more threatening characters, urination becoming difficult in a marked degree, and the stream so much disordered as to appear mere dropping most usually, attended with painful straining very often. In this condition the gentleman visited the writer from a considerable distance, and the night after his arrival he was threatened with retention from fatigue, which, however, was relieved spontaneously after much suffering. After a day's rest, an attempt was made to pass the obstruction of the urethra, which was seated very deeply in the canal; and for the purpose very small catheters—both metallic and gum-elastic—bougies and probes were employed. The exploration was attended with much difficulty, and protracted trials, variously modified, resulted in complete failure. Regarding the case impenetrable permanent stricture, and believing from the trials already made, that the perineo-urethral section was the only safe expedient offering a chance for relief, and the patient having consented, the operation was performed on the 13th of April, 1840, and very nearly after the manner of that adopted in Case I. From the great depth to which the female sound was carried, it was to have been supposed that the obstruction was in near proximity with the prostate gland; accordingly, when the urethra was laid open, the membranous portion immediately at the prostate was found to be the seat of the stricture, and the bistoury, at the same time that it entered the urethral canal, also penetrated the contraction, as announced by the escape of urine in considerable quantity. A careful examination, after enlarging the wound in the direction of the glans and dilating it, disclosed the fact that the stricture was at the prostatic extremity of the membranous portion of the urethra, and that it as well as the corresponding extremity of the prostate had been incised. After enlarging the opening in the stricture with the bistoury, the female sound, previously removed from the urethra, was passed into the bladder through the newly formed opening, which, being large enough, a No. 12 gum catheter was introduced from the meatus through the divided stricture fairly into the bladder without the slightest difficulty, where it was confined as in Case I. The perineal wound was sponged out and closed with leaden sutures deeply inserted, as in Case I., and the sequel of the treatment, in all respects, was that adopted in that case. This patient recovered perfectly in three weeks, and is yet alive and a healthy old man.

Case III.—Mr. E. R., æt. 32, of delicate constitution, slender person, dissipated habits, had led an extremely irregular life, and until strictured had indulged freely with women. The examination of the case with bougies, small catheters, and the stricture sound left no doubt of the existence of an exceedingly close stricture, and, the patient consenting, the perineo-urethral operation was performed for its relief the 15th of September, 1846. This operation differed little if at all from that in Case I.; and the seat of the obstruction, as well as its character, as respects penetrability, were the same. After laying open the urethra, it was discovered that the sound filled, quite to the bottom, the *cul de sac;* and after enlarging the incision and dilating and cleansing the wound of blood, to search for the orifice of the stricture, the sound, of course, having been previously withdrawn, the little opening was at last brought into view by requesting the patient to discharge a few drops of urine, and it was situated on one side of the canal, fully four or five lines from the bottom of the *cul de sac*, as in Case I., but considerably farther from it. The stricture was divided freely with the bistoury, as in Case I., and a No. 12 gum tube passed from the meatus through it into the bladder, and managed in all respects afterwards as in that case. The recovery was rapid, the wound readily healing without undue inflammation or any kind of impediment, and in three weeks the gentleman returned home entirely relieved of his never to be forgotten urinary trouble, and it never returned upon him during the twelve years he survived the operation.

Case IV.—Mr. I. P. D., æt. about 29, after suffering for several years from disorders of the digestive system, and occasionally from chills and fever, became strictured. The immediate or even the suspected cause of the stricture could not be satisfactorily ascertained, as in Case I. Before consulting the writer, the stricture had existed two or three years, during which time the young man had suffered from retention of urine, some of the attacks greatly endangering his life. When the case came into the hands of the writer, the general health of the young man was much impaired, and the stricture exceedingly close. Repeated attempts were made to penetrate it, say three distinct sittings, without succeeding, and the rapheo-perineal section was determined on, and was performed as in the three other cases, the 10th of March, 1872.

In this case, after laying open the urethra, it was found that the region of the bulb was the seat of the contraction; and after a prolonged search the orifice of the stricture could not be detected, yet the perviousness and continuity of the canal were restored by a random thrust of the bistoury posteriorly, from the bottom of the *cul de sac* downwards, which, fortunately, penetrated the urethra below. The patient could never force out even a drop of urine, although repeated and prolonged efforts were made by him, and the want of this sign greatly embarrassed the operation. The sequel of the treatment in all respects was conducted as in the other cases, and the recovery, although less rapid than its predecessors, was quite satisfactory.

Remarks.—Penetrable stricture of the urethra, formerly so difficult of successful treatment, in the hands of the writer has been found quite manageable in a vast number of instances. Indeed, he will say, without egotism or boasting, that his first case of failure is yet to occur. Even in examples of the impervious description he has been invariably successful. An account of his method of treating penetrable stricture was published in pamphlet form many years since, with diagrams of the instruments employed by him; and the mode of operating described in that monograph, as well as the instruments, are the same he now employs. It is true he has improved the instruments greatly, but they are virtually the same in principle as well as in form. As now practised by the writer, the operation for pervious stricture is the neatest and most beautiful operation in surgery, with the single exception of couching in cases of solid cataract; and it is comparatively painless and bloodless, as well as entirely free from danger to life.

Impervious stricture demands an operation differing essentially in manner of execution, yet it is a cutting operation like that for the cure of penetrable stricture, and the interesting cases reported in this paper furnish excellent examples, both of the operation and the difficulties which environ it. The situation occupied by the orifices of the stricture in two of the cases—I. and III. —constituted the chief difficulty in the exploration, as they would not very likely be found by any exploring instrument, unless by mere accident, and, consequently, no operation by incision could be safely performed without penetrating the stricture first with some kind of directing instrument as a guide. In Cases II and IV. the orifices of the stricture were never discovered, as the contraction in No. 2 was relieved by the initial incision into the urethra upon and below the extremity of the female sound; while in No. 4 it eluded every means of search, thereby justifying the random incision which was adopted and succeeded perfectly. These strictures were not, in strict propriety of language, impervious, as they transmitted urine, but they were surgically so, and are confessedly the most difficult and perplexing examples of the disease a surgeon has to treat.

The greatest perplexity grows out of the doubt whether the case requires the perineo-urethral section, a more formidable operation than the intra-urethral, and this doubt is by no means readily removed. It is true the perineo-urethral section is not a dangerous or difficult operation in skilful hands, but patients, as far as the writer has enjoyed opportunities to know, are averse to it and have a great horror of it. Now and then, too, recoveries from it are tedious and difficult, as well as unsatisfactory. From the history of the operation, the precise character of the stricture in Case II. could not be and was not determined. Its near proximity to the extremity of the prostate gland connected with the membranous portion of the urethra, and its imperviousness are all that could be ascertained with certainty; and even the involvement of the prostate was not clearly established.

The perineo-urethral section is a most valuable surgical resource, and is worthy of the mind which conceived, and the skilful hand that first executed it. When the writer first performed the operation in 1836, his authority for so doing was Mr. John Hunter, and he has ever since then regarded him as an early advocate, if not the author of it. Why he was induced to regard Mr. Hunter as its author he is at a loss now to determine. Possibly he derived the belief from Mr. Hunter's works, or from some notice of them in his journal reading. If Mr. Hunter is not the author of the operation, my earliest one in 1836, probably, is the first one ever performed since Mr. Hunter's time; and, though it was not published, the patient is yet living, as well as several highly respectable medical gentlemen who were present and assisted in the operation, who will testify in my behalf. My operation in 1836 must have preceded that of Mr. Sims several years. I now, as formerly, denominate it the Hunterian, or the rapheo-perineo-urethral section.

December 23, 1871.

CASE OF OCCLUSION OF THE ARTERIES ARISING FROM THE ARCH OF THE AORTA, WITH AORTIC DEGENERATION AND ANEURISMS.

By Charles W. Parsons, M.D., one of the Visiting Physicians to the Rhode Island Hospital.

A. B., aged 39, single, entered the Rhode Island Hospital, in the service of Dr. G. L. Collins, October 10, 1871. He had been in charge of an engine in a large manufacturing establishment. In the late war, he had been struck on the left, upper and front part of the chest by a piece of timber carried by a solid shot. He was confined in military hospital for some time after, and never re-entered the service, but gradually regained his health. He had been a man of somewhat irregular habits, and it is very probable he had had syphilis, but this is not certain.

His present illness began gradually, about three years before his entrance. The hospital record states:—"There is no pulsation in the upper extremities or in the carotids. An examination of the heart revealed both aortic and mitral obstruction, with hypertrophy of the heart. He is subject to fainting fits at times. The least pressure on the carotids brings on one of these attacks. At times, very slight pulsation may be felt in the radial artery, but very seldom. Pulsation in the groin and lower extremities is stronger than normal."

At a consultation, Oct. 13, Drs. Collins, Ely and Keene examined the patient, eliciting no new facts of importance. There was found to be a systolic murmur at the base of the heart. The opinion was held that there existed atheromatous change in the arteries, with probably an aneurism not revealing itself by clear auscultatory signs.

It was ascertained that Dr. Austin Flint, of New York, had once examined him, and Dr. Collins wrote to Dr. Flint and received answer as follows. Dr. F. had seen him April 2, 1870. He writes: "The case of B. interested me very much, and I have regretted that I had only the opportunity for a single rather brief examination. I noted the following physical signs: a loud, high-pitched systolic murmur, with its maximum just above the heart on the left of the sternum, heard, however, over the præcordia, and not transmitted to the carotids. Distinct dulness on percussion over second and third ribs on left side of sternum, no thrill being felt. The signs also showed some enlargement of the heart. I could discover no arterial pulse in either of the upper extremities. The carotid pulse, on both sides, was weak, most so on right side. The pulsation of femoral arteries was strong. Pressure on one of the carotids caused blindness and vertigo, so that he came near falling from the chair.

"I have noted my conclusions (indefinite as you see) in the following language: I infer some anomalous condition of the aorta, the nature of which is indeterminable. There may be a congenital malformation; but if so, something has been superadded, inasmuch as his present condition has existed only a year."

The only marked change recorded on the hospital books, before the beginning of the present year, is pain in the left shoulder, extending down the left arm. He is also noted to have expressed himself as feeling stronger. He was treated with tonics, good food, iron, quinine and digitalis.

Through the three months beginning January 1, 1872, he was under my observation. I found him able to walk about the ward, eating fairly in proportion to the amount of exercise he took, and perfectly clear in mind. He had occasional fainting attacks, and reclined a good deal in an easy-chair. He was also subject to headaches and dimness of vision. Ophthalmoscopic examination, made by Dr. H. G. Miller, showed anæmia of the textures at the base of the eye. I very rarely could feel a very faint pulsation either in radial, temporal or carotid arteries. There was no œdema.

Gradually, in the three months, he grew weaker, more haggard and pale; spoke of difficulty in breathing and of some obstruction to swallowing; lost appetite; pain in the left arm and shoulder increased; sleep became more impaired. Pain also existed in the left thorax, mostly behind. His principal complaints were of want of sleep, difficulty in breathing and pain in the arm. Motion of the arm was painful.

Apex-beat of heart was felt, increased in intensity, and lower and more to the left than normally. Both mitral and aortic murmurs were heard in first sound of heart. Percussion showed enlarged area of dulness over the heart, this dulness extending to right of sternum at level of 2d, 3d and 4th costal cartilages. No aneurismal thrill or whiff was perceived anywhere. Physical examination was difficult, especially on the back, on account of his impaired use of the left arm, he usually wearing warm underclothing and a dressing-gown.

Through the month of March he failed more decidedly, losing appetite and sleeping less. His mind was remarkably clear; he was an intelligent man, foresaw the inevitable result of his disease, and spoke of it freely, requesting that an autopsy be made. One day, about the first of March, he walked up street. In the last week of March, he had a bad cough, with somewhat profuse sputa, adhesive, and at times slightly rusty-colored, with dull percussion on the right back of the thorax. He had attacks of severe dyspnœa, with loud sounds of liquid in the larger bronchial tubes, also some diarrhœa. One such attack on Tuesday, the 26th, threatened to be fatal. On Friday, he was able to talk a good deal, and with clear intellect. The distress in breathing was somewhat relieved by carbonate of ammonia and chloroform, steadily administered, together with whiskey, and by sinapisms. Saturday morning, March 30th, I found him insensible, with tracheal râles and cold sweat, swallowing with difficulty: He died about 1, P.M., that day.

Autopsy, at 10, A.M., March 31; reported by Dr. A. E. Ham, pathologist of the hospital.

Body emaciated. Rigor mortis.

Right lung.—Firm adhesions posteriorly; congestion and at the apex commencing œdema.

Left lung.—Slight adhesions posteriorly; an ounce and a half of serum in the pleural cavity.

Heart six inches in length, the apex under the seventh rib; three ounces of serum in the pericardium; walls very thin. There was a firm clot in the right cavities. Mitral valves were thickened; there were bony deposits in the aortic valves.

Aorta two inches in diameter at its base, and dilated all the way down to the diaphragm. There were two aneurismal enlargements—one in the transverse portion of the arch, adhering to the trachea, and as large as a walnut; and another of less than half that size, at about the beginning of the descending portion. These sacs were filled with dark coagula, and looked much like dark-colored bronchial glands.

The innominate and left subclavian were entirely filled with fibrinous plugs, extending in the former vessel half an inch from its base, and in the latter up to the point where it was cut off in removing the parts from the body. The left common carotid was also nearly filled in the same manner, its calibre being only one-twentieth of an inch in diameter.

In the thoracic aorta the mouths of all the vessels were closed, except one intercostal running from the upper part and two others from the lower portion. There were found at many points atheromatous and calcified deposits in the inner coats of the aorta.

The abdominal aorta appeared healthy. Weight of the heart and aorta down to a point just below the cœliac axis, thirty ounces.

Liver slightly enlarged. Right kidney normal, but slightly congested; left kidney somewhat congested and enlarged.

Brain.—Convolutions very well marked; some venous congestion. The basilar and internal carotid arteries were diminished in calibre. There was slight effusion into the right lateral ventricle. Weight of brain, fifty and three-fourths ounces.

The most remarkable point in this case is, that the patient lived so long, and retained a considerable degree of mental activity, when the supply of blood to his brain, as well as upper extremities, was almost cut off. Of the four arteries leading to the brain, three arose from trunks which were impervious and apparently had been so for a long time; the other was almost completely occluded.

A CASE OF PYÆMIA, WITH ANOMALOUS SYMPTOMS, FOLLOWING ABORTION.

By W. P. Giddings, M.D., Allston.

On the morning of April 2, 1872, I was called to see Mrs. M., æt. 32, multipara. I obtained from her and the attendant the following history. Seven weeks previous to the date of my seeing her, she had lifted a large tub, partly filled with water, and directly after this she began flowing. This had continued a greater part of the time up to April 1st, when she was delivered of a four months' fœtus by Dr. ——, of Boston. The placenta immediately followed, the uterus contracted, and the hæmorrhage ceased. The attending physician ordered cloths, wrung out in cold water, to be applied to the abdomen, and to be repeated at short intervals for twenty-four hours. I directed that the cloths should be at once discontinued, as there was no flowing, and as she was suffering from rigors, which the nurse stated began directly after the cold applications were used. There had been some nausea and vomiting; the pulse was 144, and temperature 107½°. The tongue was a livid red in the centre, the edges covered with a brownish dry fur, and there was great thirst. There was partial suppression of the lochia and retention of urine. The intellect remained tolerably clear. There was considerable tympanites, but no marked tenderness of abdomen at any point, and she complained only of an indescribably bad feeling in the head, and of the alternate recurrence of rigors and fever. I ordered hydrarg. submur., gr. vi.; ext. opii, gr. iv. M. Ft. pil. No. iij. One pill to be given immediately, and repeated p. r. n. Patient to be nourished with gruel and beef-tea. Several hours later, she reported herself better. Pulse 128; temp. 104°.

℞. Pulv. Doveri, gr. x.;
Hydrarg. submur., gr. v.

To be followed in four hours with ʒi. of the following mixture:—

℞. Ol. terebinth., ʒiij.;
Syr. tolutan., ℥i.

April 3d.—Reports having slept pretty well the night previous. Pulse 120; temp. 103°. Bowels have moved pretty freely; four copious dark dejections, very offensive. Repeat Dover's powder and omit calomel. Continue the mist. terebinth. every four hours.

April 4th, A.M.—Much the same as at previous visit. Bowels have moved three times since last visit; character of stools the same. At time of my evening visit, I found her in an alarming condition. The pulse had risen to 136, and temperature to 105½°. There was jactitation, loss of hearing and impairment of vision. Tongue livid, red and dry. Perhaps I should state that the change seemed due to seeing friends, whom she had not met before for months, and whose sudden appearance gave her "a great shock."

I requested that I might enjoy the counsel of my friend Dr. Braman, as I feared an unfavorable issue. We considered opium together with some nourishing stimulant the *sine qua non*, and accordingly gave her ext. opii gr. 1½ in pill repeated p. r. n., and wine whey to answer the double purpose of nourishment and for quenching thirst. Beef-tea was given at the same time without stint.

April 5th, A.M.—The change for the better is most marked. Hearing and vision returned. Pulse 120. Temperature 103°. Less thirst. From the last date until April 29th, there were repeated daily rigors, followed by a profuse perspiration, with a dull, jaundiced look to the skin. There was a daily variation of pulse and temperature, the former ranging from 92 to 128, the latter from 99½° to 104½°. From two to five dejections daily; at times light ochre color, at others darkish green, but all highly offensive. On April 12th, I found tenderness and gurgling in the ileo-cœcal region, which continued up to April 29th, when convalescence was plainly marked. There were no rose spots to be seen at any time on any part of the body; no epistaxis, and no hæmorrhagic extravasation, so common in pyæmia. Early in her sickness, she complained of pain and tenderness just above left knee. An examination showed considerable enlargement without discoloration or fluctuation. The limb was bathed freely in linimentum camph. comp., which, seemingly, afforded great relief. Immediately upon improvement of the leg, pain and tenderness began to be felt in both arms at the point of insertion of the deltoid muscle, but no swelling or discoloration could be detected. Gradually, the trouble extended down the arms to the elbows, and the muscles began to contract—the biceps more especially—until the right hand was drawn up and rested upon the shoulder; the left, also, was drawn up and rested at right angles with the shoulder. The liniment was applied freely, and the arms rubbed often, as briskly as their tender condition would allow. Efforts at extension were also made. By this mode of treatment the pain and soreness gradually disappeared, and full extension of the left, and nearly that of the right is now easily accomplished

It seems to me that in this case we have some anomalous symptoms which, so far as my observation and reading extend, have never been brought to the notice of the profession. During the whole of this sickness the intellect remained quite clear, excepting one night, when there was mirthful delirium. The treatment of the case consisted chiefly in nourishment. Dover's powder ten grains were given each night, to secure rest, and check a tendency to diarrhœa. She got tinct. ferri mur. xlv. gtts. and quiniæ sulph. gr. iv. in divided doses each day. During her entire sickness, she drank daily one pint of wine whey, and frequently a pint of clear milk beside; also large quantities of beef-tea and gruel. It would seem that the nourishment which she took daily would have been sufficient to keep a strong, healthy man, yet there never was any evidence of the stomach refusing to receive and digest the whole. The early part of the treatment of this case was after a plan pursued by Dr. Braman in similar cases. He considers the combination of opium and calomel indispensable, and that they should be used freely until active purgation is established; after which he gives Dover's powder, ol. terebinth. mist. The efficacy of this plan of treatment I have more than once observed, and can bear witness to its utility in controlling or preventing any untoward events after tedious labor. The excellent results obtained in the case here reported and in two others, somewhat similar, would lead me to adopt it as the most efficient and ready method of combatting inflammatory troubles and favoring the elimination of poisonous *débris* from the system.

May 25, 1872.

Reports of Medical Societies.

BOSTON SOCIETY FOR MEDICAL IMPROVEMENT.

F. B. GREENOUGH, M.D., SECRETARY.

April 22d.—*Ovarian Disease cured by inserting a Tube into the Cyst through the Walls of the Rectum and injecting various Astringents.*—Dr. J. Homans reported the case.

Mary R., 21 years old, presented the following physical appearances on Oct. 26th, 1871. She was about 5 feet 1½ inch in height, rather slender, and considerably emaciated. The girth at the umbilical level was 30½ inches. The pelvic and lower abdominal regions were occupied by a tumor, quite pyramidal in shape, with its apex in the umbilical region. There were three masses, varying in size from that of a small pear to that of a lemon, which could be moved about somewhat between the abdominal parietes and the tumor, or else were movable in the parietes of the tumor. The main tumor was but slightly movable; apparently the adhesions were numerous and very strong. The abdominal parietes were normal in thickness. Lineæ albicantes were present over the lower abdominal regions on both sides. No dilatation of superficial veins. No distinct evidence of fluctuation in tumor. No impulse. No crepitus. No tenderness. Solid on percussion. The bowels were habitually constipated. The uterus could not be felt. The cavity of the vagina was nearly occluded by a mass filling the cavity of the pelvis. The cavity of the rectum was somewhat narrowed. Catamenia present July 12; next in middle of September, and then about the 5th of October, and again on the 14th of October. Has great difficulty in voiding urine, requiring the frequent use of the catheter, and only gets along without this instrument by pushing with the hands over the pubic region in a downward direction. As will be seen hereafter, the bladder was carried up and flattened out over the right side of the cyst, and experience had taught the patient that pushing in this way would empty it. Appetite moderate. Pain at times in abdomen for a year, and continuously in back for the past five months. Breathing natural. Rests best on right side. Pulse 88, of medium strength and volume. About three years since, first noticed a tumor beneath the navel; was not much incommoded by it until July, when the abdominal region became sore and tender, so much so that the pressure of the bedclothes could not be borne. Probably this was an attack of peritonitis. The tumor has spread out laterally since July. Dr. H. told the patient that he did not feel certain as to whether the tumor contained fluid or was solid, but he was inclined to think, from its extreme hardness, almost complete absence of fluctuation, and from its having taken the uterus up out of reach, that it was a fibrous tumor of the womb, and that he should not decide without further investigation. She expressed a desire to consult Dr. Wheeler, of Chelsea, and she was advised to do so. Dr. Wheeler reported that he obtained distinct evidence of fluctuation in the tumor, and an impulse when one finger was pressed against the growth in the rectum and the umbilical region tapped with the other hand. On the 25th of October, she was admitted to the Carney Hospital and etherized. Drs. Wheeler, Minot, C. D. Homans, Langmaid, J. O. Green, and several other physicians were present. The majority thought the tumor a solid one. The most prominent and elastic spot in the tumor was selected and punctured through the rectum towards the hollow of the sacrum on the right side, at a point about an inch and a half from the anus, using one of the long canulæ of Meyer and Meltzer's aspirator. An opaque odorless fluid, of "café au lait" color, ran out freely. It was the ordinary fluid of an ovarian cyst. About fifty ounces of this fluid ran freely out, and the pneumatic aspirator sucked out about fifteen ounces more of yellow curdy material, containing hair and epithelium. The canula was then removed. When the sac was emptied, a sound was introduced into the uterus, which was found movable and normal. The solid masses still remained, and were more or less pediculated. The patient slept well after the operation, and the next day was found to measure three inches less in circumference at the umbilicus than before the tapping. She went on very nicely until the 20th, when she had a chill; three days later, the abdomen was tender, tympanitic and swollen; she had occasional nausea. A few days later, she was moaning almost constantly, had much tenderness, and could not pass urine. A metallic catheter would not enter the bladder, as that organ was tipped up at a right angle with the urethra. A large elastic catheter entered, and its tip could be felt in the right lumbar region, but no urine came away. Pulse 125, weak, rather small; vomits morphia and opium. The next day, November 5th, with the assistance of Drs. Greenough and Fitz, the patient was etherized and again tapped in the same way as before. About fifty ounces of very offensive pus came away, and then the same yellow material of hair and epithelium. A large elastic catheter was introduced into the cyst, water injected and the catheter tied in. Pulse stronger after the operation. The chills, pain, fever, &c., were due to the suppuration in the sac. There was no peritonitis, as was feared. Slept all night without any opiate.

Nov. 6th.—Catheter syringed out, pus offensive and thin; much yellow curdy material sucked through catheter by a tight-fitting syringe, perhaps several handfuls.

Nov. 7th.—Urine drawn off by catheter with great relief. Cyst syringed out with water; more yellow material removed. To take eggs, milk punch, &c. Up to Nov. 15th, each day's record is the same. The urine was drawn in the morning, the cyst syringed out, and more or less of the solid material before mentioned removed. Mr. Phelps, a student who kindly volunteered, did the same thing each evening. The catheter was removed from the cyst, an enema given, which operated well, and another catheter introduced. On November 17th, passed urine naturally. On the 19th, another enema was given, after the catheter had been removed from the cyst. On the 20th, the opening from the rectum into the cyst was found to have closed too much to admit a catheter, and Dr. H. waited to see if the cyst would fill again. On December 4th, general pain and chilliness came on, and on December 7th, the cyst was tapped as before, using, however, a trocar four inches in diameter; and one pint and a half of very offensive pus was removed. The opening was enlarged with the bistoury and a catheter introduced. On December 9th, the discharge was free. Appetite and general health excellent. Injected about four ounces of pure alcohol into the cyst, most of which returned at once, but about one-half ounce was retained. The foot of the bed was elevated so that the hips were higher than the head, to enable the alcohol to run to the top of the cyst. December 11th, ℥ij. of alcohol injected and retained. Dec. 11th, tube came out during a movement of the bowels. On December 26th, the cyst was again tapped, as pain in the back, &c., showed that suppuration was going on in the sac. About one pint and a half of very offensive pus was removed, the opening enlarged somewhat with the knife, upwards and downwards, and a piece of stomach tube, one inch and three-eighths in circumference, was passed into the cyst and tied in. Mary had gained much flesh and strength since she entered the hospital. The sac was washed out and some alcohol injected. On Dec. 27th, about three ounces of pure tinct. iodine was injected and corked in, with orders to remove the cork in three hours.

Dec. 29th.—Reports some pain after iodine injection day before yesterday. About three ounces tincture of iodine injected to-day.

Dec. 30th.—Another iodine injection. No pain.

Dec. 31st.—Three ounces tincture of iodine injected. Considerable pain and smarting. Appetite good. Discharge from tube inoffensive and thin.

Jan. 3d, 1872.—Discharge thin and smelling of iodine. Catamenia present.

Jan. 6th.—Four ounces tinct. iodine injected and corked in. Tube drawn out a little so as to leave less of it in the cyst. Discharge has been offensive for two days past.

Jan 8th.—Four ounces tinct. iodine injected, but most of it ran out before the cork was put in.

9th.—Injected iodine and water and about Oss. of sol. ferri sulph. gr. xx.—℥j. of water.

10th.—Iodine injection.

12th.—Much less discharge. Injected a pint of solution of ferri sulph. grs. xl.—℥j. Considerable smarting.

16th.—Discharge offensive, not very abundant, of an inky color from the iron; tube removed.

Feb. 9th.—As the patient complained of some back-ache, I etherized her and found a sound could be easily introduced into the cyst through the opening in the rectum where the tube had been. Drew off about a quart of very offensive pus. This pus had not run off through the rectum, because the sphincter closed the opening, acting as a sort of valve. Enlarged the opening upwards into the rectum, and downwards partially through the sphincter, and by exploring with the finger found that the sac ran up between the sacrum and rectum, adhering to the former and probably to the latter, behind the uterus. The walls seemed to be about one-fourth of an inch thick, somewhat rough, but firm and tough. An attempt was made to grasp the upper extremity of the cyst with long forceps and drag it down, but no good grip could be obtained; and even if the attempt had succeeded, the firmness of the walls and the adhesions would have prevented accomplishing anything. As the hæmorrhage was rather free, I injected a mixture of equal parts of carbolic acid and water, and when this had run out a solution of ferri sulph. A piece of œsophagus tubing was tied in as before. On February 15th, the tube was finally removed. On Feb. 26th, passed a large catheter easily into the cyst without etherizing, and about three ounces of pus and some gas came out. Patient thinks that there is occasionally a slight discharge from cyst into rectum. On Feb. 29th, Mary came in to see me on her way to Worcester. She was plump and strong. The abdomen was natural in appearance; no hard masses could be seen or felt. Her circumference at the umbilical level is twenty-six inches. She promises to return at once if any symptoms admonish her that the sac is filling.

April 15th.—Mary is stout and strong; has been working as a servant since last seen, and regards herself as perfectly well. She has a good color, and weighs about 150 pounds. A catheter can be passed into the sac; there is no pus, but gas comes out. Probably this gas is generated because of the connection between the cyst and the bowels. I think the cure may be considered permanent.

Dr. Ellis spoke of a case somewhat similar which had occurred several years ago. The patient was tapped and a permanent opening was made. The discharge from this opening gradually became less and less, and finally ceased entirely. Some years afterwards, the patient having died of some other disease, an autopsy was obtained and hardly any vestiges of the old cyst were found, the cavity having contracted and the walls being adherent.

Dr. Jackson spoke of a case of Dr. Walker's, in which a trocar was introduced into the cavity of the cyst, which opened out when inside and was thus kept permanently in place. In this case he supposed that the irritation caused by the presence of the instrument had occasioned the contraction and adhesion of the walls of the cyst.

Dr. Fifield said that he considered the pneumatic aspirator a most valuable aid in the diagnosis of ovarian disease. He had seen a case where a patient, some months after confinement, noticed a tumor in the right hypogastric region. At the same time, she began to lose flesh, and her skin became yellow. At that time she was under medical treatment in a neighboring city, her disease being considered hepatic. When first seen by Dr. Fifield, in February, she was much emaciated, and her skin was almost a lemon color. There was a tumor in the right hypogastrium, which was felt to dip down between the rectum and the spinal column. Dr. F. considered the disease to be malignant, and gave a bad prognosis. The patient was afterwards seen by a surgeon who pronounced it ovarian, and operated for the purpose of making a permanent opening. The patient died on the third day after the operation.

April 22d.—*Two Cases of Cerebro-Spinal Meningitis.*—Dr. J. N. Borland reported the cases.

W. E. M., aged 17, a resident of 32 Albany Street, Boston, was admitted to the Boston City Hospital, coming under my care on the 13th day of last January. He was delirious, and the history of the case could only be made out from his friends, who stated that he had been an active, energetic boy. About a fortnight before he was taken sick, he commenced work as a a carriage painter, but was during this time employed as the youngest apprentices at such occupations not unfrequently are, in the performance of a variety of odd jobs. On the 6th of January he felt poorly, with chilly sensations lasting all day. On the next day, when stowing away some coal, he became so ill that his employer noticed it, and sent him home in the middle of the forenoon. He went to bed delirious, with intense headache, pain in his neck and upper part of his spine, which became stiff, with head drawn back sharply between the shoulders. During this week he had involuntary dejections and micturition.

When he was admitted to the hospital, his head was fixedly drawn backwards. He was noisily delirious, though he could be compelled to return to a temporary lucidity, but on ceasing to put imperative questions he at once relapsed into loud shouting delirium, calling imaginary names, cursing, complaining of his head, then wailing, whining, simpering. He was constantly opening his eyes to their fullest extent and then closing them tightly. Light was evidently painful, as was sound, for if any one spoke in a loud tone near him, he would instantly beg them to hush. He had dried blood about his nostrils, as if from previous nose-bleed. His lips were dry and cracked. There was much sordes on the teeth. His tongue was dry and glazed at tip; dry and heavily coated on the back part. The skin was not very hot; there was a scattered acne over the upper part of the chest and shoulders. Any movement of the patient on to his side caused loud complaints of pain in the head, neck and back. In the evening, his pulse was 100. Respiration 36. Temperature 101½°.

Jan. 14th.—There was internal strabismus of the right eye. Tongue dry, glazy and brown. Pulse tended to reduplicate. There were about the neck, forearms and wrists faintly marked reddish livid blotches, but no real maculation of the skin noticed, nor was it at any later period. Nothing very marked about pupils. Temperature in A.M., 102°; in P.M., 102½°. Pulse ranged from 104 to 96. He was orded fluid ext. ergotæ, fifteen drops every four hours; sol. brom. potass., twenty grains every four hours, alternately. Evaporating lotion to head and heaters to feet. To be fed with broths, soups, milk, &c.

Jan. 15th.—Delirium of same character, but less noisy. Strabismus, with constant opening and shutting of right eye, continues. No return of nose-bleed. Teeth covered with thick sordes. Tongue very heavily covered with thick, yellow, foul coating and deeply seamed with fissures. Bowels costive. Still involuntary micturition. Pulse 68 to 72, and sufficiently strong. Temperature 99°, in the evening. ℞. Pulv. jalapæ, hydrarg. submur., āā gr. vij., M., at night, and to be thoroughly washed with soap and water, and rubbed with spirits.

Jan. 16th.—Learned to-day that he inherits consumption on the father's side, and that his father is now sick with chronic lung disease. The patient seemed duller and quieter than before, but answered questions rationally. The pupils were somewhat dilated, but responded slowly to light. He said that the headache was lessened. Head still retracted, though the neck, if anything, is less stiff. Bowels freely evacuated after an enema. Sordes flaking off a little from tongue and lips. Pulse varied from 76 to 104. Temperature 102½°.

Jan. 17th. Only difference was that the eyes were less dilated until late in the evening, when the temperature rose to 103½°; noisy delirium, and complaint of headache returned. After a while became quiet, but was wakeful and restless all night.

Jan. 18th. He was more stupid. There was a want of expression of the right side of the face, suggesting facial paralysis; the right nostril a little dilated, and the right eye more staring, though still winking and with internal strabismus. His tongue rather less coated. Pulse 92. Temperature 102½°.

From this date to the 24th of Jan. his condition slowly improved. Temperature gradually falling to the normal point.

On 24th, he was at the visit sleeping; not roused by loud talking, allowing eyelids to be raised without awaking him. He could be roused enough to answer a question, but instantly fell off into his lethargic condition which lasted until the 29th, during which time his pulse was feeble, about 80 to 90. Temperature a little below the normal point. Sordes disappeared from mouth, tongue becoming bright red. Skin was dry and harsh, involuntary dejections and micturitions continued and bedsores formed. Ergot and bromide treatment was omitted on the 26th, and sulphate of quinine gr. i. given 3 times daily.

Jan. 31st. A record of no marked change except rather more mild delirium, but on Feb. 4th the record was: Patient becomes entirely rational and natural. Pulse 86, good strength. Temperature 99½°. Countenance bright and natural. Skin cool, soft, natural. Tongue clean, no sordes, no strabismus, or facial paralysis. Motions of head free; no cervical tenderness. Appetite good. Able to feed himself. Has regained control of bladder and bowels. Only suffering and complaint is from bedsores. He was put upon the syrup of the hypophosphites of lime, soda, potass. and iron, ʒi. 3 t. d., quinine being omitted.

Since the last date, patient has steadily progressed in his convalescence, and he is able to walk about. Bedsores healed, and mind perfectly clear. He was afterwards discharged, well.

The second case which I have to report is that of a young Englishman, 20 years old, who was a steerage passenger on the Cunard steamer Hecla. He passed inspection as being healthy on the sailing of the steamer. On the 7th of June, the surgeon, on going his rounds, found the patient very much in the same condition that he was in when admitted to the hospital, on the 17th, ten days later. Then the record states:—Patient was in bed. Cheeks slightly flushed. Skin normal as to heat. Patient's head markedly drawn back, and cannot be made to bow forwards. Eyes suffused. Pupils normal in size, but sluggish. Tongue could not be protruded, and on attempting to introduce a spatula, teeth became clenched, but the tongue was seen to be thickly covered with a dry, dirty-yellowish coat. General appearance of skin of body dusky, with slight amount of livid blotching, but no maculæ. Patient could understand questions and what was said about him, but was unable to speak, having lost the power on the 14th inst. Bowels and micturition free, and no involuntary action. Is very restless, tossing about, and muttering. Swallows his broths readily, and seems very thirsty.

On morning of the 18th, patient was seen in the opisthotonic condition by one of the house officers, but this condition was only of short duration. His temperature was 99½°. In the evening, the head was noticed to be a little more movable. He was ordered the same treatment as the preceding patient, viz., alternate doses every four hours of bromide potassa, grs. xx., and fluid extract ergot, gtt. xv. and good nourishment.

On 21st, intelligence seems to be improving. Answers questions so that he can be understood. Skin still greasy. Heavy sordes on teeth. Tongue still covered with that heavy dry yellow fur. Eyes still much suffused. A crop of diffused acne on chest, similar to that recorded in the case of the previous patient. Speaks of headache, sore throat, and complained of hunger, although he was taking five pints of milk and two of broths in twenty-four hours. Bowels were open, but micturition was involuntary. Rigidity of neck continued, with retraction of head. No stiffness of lower part of spine. Pulse 76, and temperature 98°. Gradually gentle delirium began to be established. He seemed in some respects to improve; he had no pain; the neck became less rigid; skin was in better condition, and pulse improved in strength.

On 26th, quinine was substituted for the bromide and ergot.

On the 30th and 31st, he seemed very well, except the persistence of the mild delirium. But on February 1st, his aspect changed; vomiting set in, his eyes became dull, skin dusky and greasy; thick sordes returned; head was again strongly retracted; understanding was dulled; pulse became weak, thready, 124 in the evening, and temperature 105½°. His bowels had been constipated before this, and were moved by enema of soap suds and oil, and after that a constant leakage of fæcal matter.

On the 2d, this condition continued, with a hot dry body, and an eruption looking like that of scarlet fever on the body, with, in the evening, minute petechiæ. And on February 3d, at 7, A.M., he died.

The autopsy was made by Dr. S. G. Webber, who found the cerebral meninges only moderately congested; puncta vasculosa numerous; white substance abnormally pink; this extended as low as the medulla oblongata. The spinal cord and membranes congested, and much more spinal fluid than usual. Arachnoid at base of brain was a little thickened, and perhaps more opaque than usual. Brain and cord otherwise seemed normal in structure and consistency. The interior of small intestines were quite strongly colored by blood, and contained some blood mixed with their contents. Peyer's patches were prominent, not ulcerated.

Solitary glands of large and small intestines were enlarged. The mesenteric glands, especially those nearer the insertion of the mesentery to the parietes, were very large.

Since making these extracts from the records, I have seen one of the officers of the Bellevue Hospital, in New York, who told me that they had this winter twelve cases in that hospital, the general features corresponding exactly with those of the two patients here recorded. A fever, marked by sharp retraction of head between shoulders, seldom amounting to true episthotonos; delirium of varying amount up to wildness, but always able to be recalled to a momentary sanity; no marked hyperæsthesia of skin; no maculation as in typhus, but in all a discrete acne over chest and shoulders, and sometimes on forehead. A temperature but seldom rising above 103°. Pupils sluggishly responding to light, and loss of control of the sphincters.

There had been five autopsies, one of them giving almost the same appearances of the membranes of the cord as noted in the cases I have reported.

In the other four, the appearances were more distinct, and there was a deposit of pus particularly in the lower half of the cord, and there was a reddening of the gray matter of the cord.

The gentleman whom I have quoted said that there were some apprehensions in New York lest the disease should become epidemic this season.

The next Triennial Astley Cooper Prize of £300 will be awarded to the author of the best essay or treatise on "Injuries and Diseases of the Spinal Cord," which must be sent to Guy's Hospital before January 1st, 1874.—*Dub. Med. Press and Circular.*

Medical and Surgical Journal.

Boston: Thursday, June 20, 1872.

THE INDISCRIMINATE SALE OF POISONS.

> "Coroner's Verdict.—In the case of Lizzie Whittemore the jury of Coroner Hastings brought in the following verdict:—
>
> That the said Lizzie Whittemore came to her death at 11, A.M., June 3, 1872, at 27 Kneeland Street, in consequence of excessive use of alcoholic liquors and an overdose of morphine, administered by some person or persons unknown to the jury; and they further find that the custom of selling deadly poisons by apothecaries (as in this instance) to persons unknown to them, and without prescriptions from physicians, is highly culpable."

Again, and for the hundredth time, a coroner's jury has had occasion to deliberate upon a mysteriously sudden death, whose cause it required only brief investigation and moderate acumen to determine. The story is a short and familiar one. A young girl, friendless and alone, in a great city, tired of life because some of its mad schemes have disappointed her, resolves to destroy herself. The means for the fulfilment of her purpose are manifold, but the adjacent apothecary is selected to provide the sure and speedy poison. For cash, the abundant supply of narcotic is readily obtained on demand, and no questions are asked. The way is now clear, the poison is taken, the coroner's jury holds its sessions, and returns a verdict; and the case is forgotten.

But the lesson it teaches should not be forgotten, but should be told again and again, with renewed emphasis. The closing clause of the verdict of Coroner Hastings's jury, in the case above alluded to, reiterates it in terms which are beyond cavil and which will be approved by the judgment of all sensible people, in and out of the profession, druggists included. Such plain and forcible expressions concerning a too common and too dangerous custom deserve the highest commendation and approval.

There are laws whose letter and spirit are sufficiently explicit in their prohibition of the indiscriminate sale of poisonous drugs, and which regulate the barter in such articles by provisions and limitations abundantly calculated as safeguards; but hardly a day passes that the newspapers do not record deaths by suicide or by misadventure resulting from the careless or the malicious violation of these restrictive statutes. Yet who has ever heard of a prosecution under these acts against a druggist?

Nor do the apothecaries themselves hesitate to acknowledge their own free interpretation of the law in their practice. In an investigation, undertaken the last year in this State by the Board of Health, to determine the relative increase in the opium-habit, the druggists of this city were canvassed; and out of a large number, only two or three declared that it was their rule never to dispense narcotics except by prescription.

We give it as a hint to coroners' juries and as one method of meeting this growing evil, that when they are called upon to render such a verdict as that which heads this article, it will have a salutary effect if, instead of making the blame of general application, they fix the culpability on the offending druggist in particular. The number of suicides is not so great that a druggist so well-disposed to suicidal purposes would find the calls for poisons greatly increased, because of the exposure; while the effect on his fellow-pharmacists would have a good tendency.

But the apothecaries must not be made to take all the blame in this matter. Physicians are not altogether above reproach, and much of the looseness of poison-dispensing is fairly chargeable to them. It is a frequent habit with many practitioners, especially in their visits to families with whom they enjoy a certain degree of professional intimacy, to speak of drugs and to order them with a heedless freedom which deprives the poisonous articles of their deleterious character in the minds of the consumers. Especially is this the case with the preparations of opium. If a child is in pain, the general direction to "give it five or ten drops of paregoric" is deemed enough without a prescription. If an opiate fomentation is required, the advice is to "get a couple of ounces of laudanum at the druggist's" for the purpose. This heedlessness is easily acquired, but it is none the less blameworthy. It reacts on those who use the drugs, to throw them off their guard; and on those who sell them, to give them a ready excuse for similar heedlessness in dispensing. At best, physicians' prescriptions are, as a rule, sufficiently loose in their construction, and a regular course of practical instruction in this subordinate but important department of the medical art would be an acceptable innovation. But, meantime, for those to whom the medicamenta are familiar therapeutic instruments, in their daily practical duty, the lesson cannot be learned too soon that the written prescription, even kept in duplicate, is not labor lost, no matter how trivial the order; that every such prescription is a voucher for the physician, for the patient and for the druggist, and that it is a pledge of accuracy which may greatly aid to correct the evils of indiscriminate dispensing.

Animal Diseases transmissible to Man.—We believe that doubters are looked upon by believers as justifiably condemnable, the believers not reflecting that they are as likely to be wrong as the others. It is the fashion to believe with the greater number, and to shut one's eyes to the truth, which only a minority believes. It is somewhat refreshing, therefore, to find that such a body as the American Medical Association dares to be afraid of communicating death to mankind, while endeavoring to protect, or at least that it dares to stop a moment and say, "let us consider."

The following is from the minutes of the third day's proceedings of that Association, at Philadelphia.

"Dr. Alex. W. Stein, of N. Y., offered the following, which was adopted:—

"Whereas, it has long since been recognized that diseases of a dangerous and fatal nature are transmissible from animals to man, and that certain zymotic affections which are common to both man and animals do very frequently manifest themselves first in the latter and subsequently in man, thus warning us that to be indifferent to the condition of the inferior animals is to introduce and to create centres of disease among ourselves;

"*Resolved*, That a committee be appointed to ascertain what measures can be instituted to prevent the extension of such diseases to man, and what sanitary measures can be effected to arrest the progress of such diseases in animals.

"The President appointed as the committee Drs. A. W. Stein of New York, Geo.

Sutton of Indiana, and S. D. Gross of Pennsylvania."

THE LATE DR. JOHN DOLE, OF AMHERST, MASS.—Those who knew our friend Dr. Dole, will understand what a loss our profession has suffered in his recent sudden death. From the commencement of his medical studies in Boston, in 1861, till the close of his life, he never, by day or night, lost sight of the purpose then formed, to be above reproach as a physician, and to stand the unquestioned equal of the first.

At the close of four years of severe labor, at first as a student, and afterwads as house-pupil in the City Hospital (then just opened), he was obliged to seek absolute rest from all exertions; and to this end chose a journey to Europe. Returning after nine months of rest and study, he soon married and settled in Amherst, Mass., where from the beginning his career was marked and brilliant, especially in his favorite branches, surgery and midwifery. But overwork by day, and protracted study by night, told by degrees upon a naturally strong constitution. An obscure affection of the heart, the foundation of which may have been laid in an attack of rheumatic fever some eight years ago, had seemed entirely relieved by the first years of country life and air; but within the past twelvemonth it returned, accompanied by Bright's disease, of which he had some of the severer symptoms during the early part of this year. From this attack he had so far recovered as to be able to travel; and, encouraged by the statements of physicians in Amherst and Springfield, he set sail on the 6th of May, in the steamer New York, for Bremen. The passage was long and very stormy; eating and walking were out of his power; his extremities were constantly cold. On nearing the English coast the weather moderated, and he sat on deck a whole day, enjoying the familiar sights in company with his family. After tea he went into the smoking-room with a friend, who, presently noticing that the cigar had fallen from his lips, stooped to pick it up for him, but on observing his face, saw that he was no more.

Devoted attention to his patients, and untiring energy in the pursuit of clear ideas in medicine; a fervid indignation at wrong, and an enthusiastic recognition of whatever was noble and honorable; unchangeable attachment to friends, and unrelenting sternness towards the one capital sin of unfaithfulness; such were among the qualities we traced in our friend. To one idea he was most tenaciously attached; the idea of full and equal mental development, of growth in *all* knowledge, of becoming "a man, and not a mere doctor." If unsparing towards the meanness of character he had sometimes to encounter, he was equally unsparing of his life and his affection in working for the good of those to whom he owed his prime duty, that is, his patients and his household. It is not becoming to speak much of the deeper characteristics of his nature. Those who knew the depth of his reverence, his faithfulness, his sincerity, will not need to be told here.

L.

BAD SYMPTOMS FOLLOWING VACCINATION. *Messrs. Editors,*—In response to a request of a contributor in your issue of the 6th inst., that gentlemen will report cases where bad symptoms have followed vaccination or re-vaccination, I present the following.

On the 12th of February last, I vaccinated two ladies, passed the meridian of life, of feeble constitution and languid capillary circulation. With the same vaccine matter, or at least from the same package of ivory points received from your city, and which purported to be "humanized vaccine, one remove from the cow," I re-vaccinated myself and two persons in the family of one of the ladies referred to.

On the fifth night, subsequently, both ladies experienced a most severe and persistent chill, with much pain in the arm near the point of insertion. Both were ill in bed for a few days, with fever and total loss of appetite; swelling of the arm, with erythema, reaching nearly to the wrist, and ending in abscesses, which continued to discharge profusely five or six weeks. Vigorous supporting measures, wine, quinine, morphia, and the richest diet which the stomach would tolerate, were necessary to carry them through. Rev. Dr. Jones, of this State, and formerly of this city, is reported as having died during the last winter, from a similar attack following re-vaccination.

The question is natural and important: are these morbid effects the result of the noxious quality of the matter used, or are they incidental to the process?

Vaccinated, myself, by the celebrated Dr. Fancher, more than fifty years since, I have thereby been enabled to resist numerous exposures to smallpox, and also any satisfactory result from re-vaccination, until this last trial. It could scarcely have been more normal to the type, had it been primary. The other cases, vaccinated from the same package of matter, did well.

Vaccination has been very extensively practised among us during the past winter, with matter from the same source and mostly "directly from the cow," and we have had many cases of obstinate ulceration, with attendant erythema; yet I feel constrained to refer them, for the most part, and particularly the cases of abscess alluded to, to debility, constitutional peculiarities, or abnormal conditions of the organism accidentally present.

It is an important question to be solved in the future by these ladies and others of like experience: are they any more secure against variola than previous to their late re-vaccination? Has the induced inflammation, as was formerly taught, neutralized and supplanted the specific power and influence of the vaccine?

I. G. Porter, M.D.

New London, Ct., May 11, 1872.

The Thirst-Cure in Pleurisy.—In the *All. Milit. Ztg.*, 1871, Dr. Pimser says that the result of the thirst-cure in pleurisy is very favorable; and in comparison with all methods of treatment hitherto employed it is very certain and rapid, and hence it is especially useful in hospitals and for persons who are peculiarly anxious to get well rapidly on account of their condition. The cure is commenced immediately after the cessation of the symptoms of pyrexia, that is the inflammatory stage, since by quickly carrying out the process of sucking up of the exudation, the deposit of fibrinous bands and the occurrence of false membranes is hindered, and a complete recovery of the compressed lung takes place. The cure is certainly a heroic one, but is not at all dangerous to the constitution, even in delicate and emaciated persons, and even not in the cases where pyrectic symptoms still exist when the cure is commenced, since these are alleviated by means of it. If no symptoms of reabsorption occur during the cure, we may in great probability diagnosticate that there is no pus present in the exudation, even though no symptoms betray this. In fact, this treatment is not dangerous for the organism, and the patient picks up after it very rapidly.—*The Doctor*.

Cerebro-spinal Meningitis.—Dr. N. S. Davis, in a paper read before the Chicago Medical Society, says, with regard to the treatment of this disease, that he has better success with the Calabar bean, either alone or in combination with ergot, than with any other remedy. For an adult he makes up the two following prescriptions, of which he gives one teaspoonful every two hours, alternating so that the medicine is given every hour:—℞. Tinct. Calabar bean, ʒiss.; fl. ext. ergot, ʒijss. M. ℞. Carbolic acid cryst., grs. vi.; glycerine, ʒss.; tinct. gelseminum, ʒss.; water, ʒiij. M. The medicine to be given without raising the patient's head from the pillow, to avoid the danger of vomiting. Cold cloths are to be kept to the head.—*Medical Examiner*.

A New Means of Combatting Muscular Contraction.—Every one is familiar with the resistance offered by muscular contraction in the reduction of dislocations or of fractures with displacements of the fragments. In order to avoid this difficulty resort is had to reduction as soon after the accident as possible to profit by the condition of stupor existent at that time. After this period etherization becomes necessary. M. Broca, however, has devised a means which is void of the inconveniences of anæsthesia; it is compression of the princical artery of the wounded limb. The muscles deprived of the blood necessary for the exercise of their functions by compression of the brachial or femoral arteries are unable to contract.—*Lyon Médicale.*

Laryngotomy.—Mr. John Wood, in the course of clinical lectures on this subject (*Lancet*, March 9, 1872), says that under a sense of impending suffocation patients usually throw the head backwards; and this movement stretches the skin of the neck and tends to close the vertical incision which is usually made in the skin over the crico-thyroid membrane, and thus to interfere with free inspiration through the wound. But this frequent movement tends, on the contrary, to open a transverse cut in the tissues. He therefore prefers, with a sharp, small-bladed knife, to make a single transverse incision across the lower part of the hollow depression felt by the finger, just above the cricoid ring, through the skin and membrane at once, right into the windpipe, and to extend it sufficiently laterally to introduce a tube. Such a wound will remain open without a tube; sometimes, indeed, the patient will breathe more easily without one. If a tube be used, it should be broader in the transverse than in the vertical diameter, and shorter in the length between the shield and the curve than the one adapted for tracheotomy. —*Phil. Med. Times*.

Medical Miscellany.

APPOINTMENTS AT THE BOSTON CITY HOSPITAL.—Dr. S. A. Green having declined the election as Superintendent of the Boston City Hospital, Dr. Edward Cowles, of this city, and recently of the U. S. Army, has been appointed to that position, and will enter on his duties July 1st.

Dr. Robert T. Edes has been elected a Visiting Physician vice Dr. A. D. Sinclair resigned.

Dr. George W. Gay has been appointed a Visiting Surgeon, vice Dr. D. McB. Thaxter resigned.

DR. BROWN-SEQUARD.—The recent announcement in our columns that Dr. Brown-Séquard would deliver a course of lectures before the Harvard Medical School the coming winter was premature. We learn that no arrangement has as yet been made for the course alluded to.

PROF. WM. WARREN GREENE, of the Bowdoin Medical College, Maine, has accepted the Chair of Principles and Practice of Surgery and Clinical Surgery in the Long Island College Hospital, Brooklyn, N. Y.

THE "PECULIAR PEOPLE," a sect of English religious fanatics, are giving great trouble to the medical and civil authorities of London. These people believe that as disease comes by Divine interposition, so also must the cure be by superhuman means; and they depend, therefore, on the laying on of their elders' hands for treatment, ignoring all medical aid and refusing to summon it. This sort of thing works ill for all concerned. The patients die in spite of the imposition of hands; and, what is of greater concern to the London public generally, smallpox is found to take advantage of the "peculiar" method of treatment and to spread rapidly. In consequence of this, it has been found necessary for the general safety to institute legal proceedings, and two of the sect have been indicted for manslaughter in cases where their children died of smallpox, no physician having been summoned.

OPIUM EATING.—The Legislature of Kentucky, in order to check the practice of opium eating, which is greatly on the increase, has just passed a bill that on the affidavit of two respectable citizens, any person who, through the excessive use of opium, arsenic, hasheesh, or any drug, has become incompetent to manage himself or his estate, may be confined in any asylum and placed under guardianship, as in the case of habitual drunkards or lunatics.—*Med. and Surg. Reporter.*

ACCIDENTAL POISONING.—The *Pharmaceutical Journal* has undertaken the task of collating cases of accidental poisoning, and has in its last issue produced the result in tabular form. The cases extend over a period of about three years and a half, and number altogether 48. Of this number more than one-half, or 24, occurred in the use of domestic nostrums or household chemicals, such as Godfrey's cordial, vermin-killer, soothing cordial, laudanum, and "Mrs. Winslow." Only three out of the 48 cases are reported from Ireland, and two from Scotland, the remaining 43 being English.—*Med. Press and Circular.*

ON THE GROWTH OF THE NAILS AS A MEANS OF PROGNOSIS IN CEREBRAL PARALYSIS.—Dr. S. W. Mitchel (*American Journal of the Medical Sciences*) states that he has observed in several cases of paralysis that the nails of the limbs of the affected side, on the occurrence of the accident, ceased to grow. This was proved by staining the roots of the nails with nitric acid. He was able to predict, in seeing after a time a white line of nail making its appearance, and before there were any other signs of improvement, that power was about to return to the limb, and that voluntary motion would shortly be restored.—*Medical Record.*

BOOKS RECEIVED.—The Correct Principles of Treatment for Angular Curvature of the Spine. By Benjamin Lee, A.M., M.D. Philadelphia: J. B. Lippincott & Co. (From the Publishers.)—Doctor in Medicine, and other Papers on Professional Subjects. By Stephen Smith, M.D. New York: Wm. Wood & Co. (From the Author.)

PAMPHLETS RECEIVED.—Report of the General Committee of the Second Cincinnati Industrial Exposition, held in Cincinnati from Sept. 6th to Oct. 7th, 1871. Pp. 285.—Rules and Regulations and Premium List for the Third Exposition of the Cincinnati Industrial Exposition of Manufactures, Products and the Arts, 1872. Pp. 56.

MARRIED,—In Waverly, Mass., June 3d, Dr. H. F. Hanks, of New York City, to Miss Julia Dana Godfrey, of Boston.

Deaths in thirteen Cities and Towns of Massachusetts, for the week ending June 15, 1872.

Cities and Towns.	*No. of Deaths.*
Boston	150
Charlestown	11
Worcester	26
Lowell	15
Cambridge	15
Salem	7
Lawrence	9
Springfield	2
Lynn	9
Fitchburg	4
Newburyport	3
Haverhill	1
Holyoke	11
	263

Prevalent Diseases.	
Consumption	44
Pneumonia	18
Scarlet fever	14
Measles	11

There were nine deaths from smallpox in Boston and one in Holyoke. Of the deaths from measles, eight were in Holyoke.

GEORGE DERBY, M.D.,
Secretary of State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, June 15th, 150. Males, 81; females, 69. Accident, 6—abscess, 1—apoplexy, 1—anæmia, 1—inflammation of the bowels, 2—bronchitis, 4—inflammation of the brain, 1—congestion of the brain, 6—disease of the brain, 10—cancrum oris, 1—cerebro-spinal meningitis, 2—cancer, 4—cholera infantum, 3—consumption, 21—convulsions, 5—debility, 2—diarrhœa, 3—dropsy, 1—dropsy of brain, 1—drowned, 4—diphtheria, 1—erysipelas, 3—scarlet fever, 8—typhoid fever, 2—gangrene, 1—disease of the heart, 6—homicide, 1—hæmorrhage, 1—disease of hip, 1—intemperance, 3—disease of the kidneys, 4—congestion of the lungs, 3—inflammation of the lungs, 5—marasmus, 3—measles, 3—ovarian disease, 1—old age, 1—peritonitis, 1—puerperal disease, 2—pyæmia, 1—suicide, 1—scrofula, 1—smallpox, 9—disease of the spine, 2—tumor, 2—whooping cough, 3—unknown, 2.

Under 5 years of age, 63—between 5 and 20 years, 19—between 20 and 40 years, 26—between 40 and 60 years, 24—above 60 years, 18. Born in the United States, 105—Ireland, 26—other places, 19.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

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Original Communications.

ALCOHOL AS A NUTRITIVE AGENT.

By H. P. Bowditch, M.D., Boston. Read before the Boston Society of Medical Sciences.

The experiments of Dr. Subbotin* were performed on rabbits enclosed in an apparatus by means of which the exhalations of the skin and lungs could be examined for alcohol. The urine was also collected and examined for the same substance.

The experiments showed that in the first five hours after the introduction of 3.45 grammes of alcohol into the stomach of a rabbit about 2 per cent. was eliminated by the kidneys, and 5 per cent. by the lungs and skin.

Experiments extending over a greater length of time led to the conclusion that, usually, during twenty-four hours at least 16 per cent. of the injected alcohol leaves the body in an unchanged condition (or perhaps as aldehyde), and that besides this elimination by lungs, skin and kidney, a portion of the alcohol is oxidized in the organism. Although by this oxidation force must be set free in the organism, the author does not consider that alcohol is on that account to be regarded as a nutriment, for the functions of the animal body depend for their performance, according to Dr. S., upon the transformation of living material, *i. e.*, of the constituent parts of the body, and not upon the decomposition of matter foreign to the body.

In a note appended to Dr. Subbotin's essay, Prof. Voit expresses himself as follows: "I do not agree entirely with Dr. Subbotin in his views on the importance of alcohol as a nutriment. I define a nutriment as a substance which is capable of furnishing to the body any of its necessary constituents or of preventing the removal of such constituents from the body. To the first class belong such substances as albumen (since it can be deposited as such in the body), or fat or water or the mineral constituents of the body; to the second class belong such substances as starch, which hinders the loss of fat from the body. If a nutriment is defined as a substance which by decomposition furnishes living force to the body, the definition would not be exhaustive, for it would exclude water and the mineral constituents of the body. Alcohol must, therefore, to a certain extent, be regarded as a nutriment, since, under its influence, fewer substances are decomposed in the body. It plays in this respect a similar (though quantitatively very different) part to that of starch, which also protects fat from decomposition and, when taken in excess, causes deposition of fat in the organs or fatty degeneration. If a part of the alcohol is decomposed in the body into lower forms of chemical combination it *must* give rise to living force, which either benefits the body in the form of heat or may perhaps be used for the performance of mechanical work; the same is true of acetic acid, which is also not to be considered as an ultimate excretory product, and from which, therefore, in decomposition potential force passes into living force.

"It is another question, however, when we ask what importance alcohol has for us as a nutriment and whether we take it in order to save fat from decomposition and furnish us with living force, in other words, to introduce a nutriment into the body. Since alcohol, when taken in considerable amount, causes disturbances in the processes of the animal economy, we cannot introduce it in quantities sufficient for nourishment as we do other nutriments, and in the amount which we can take without injury its importance as a nutriment is too small to be considered. In this point, then, I agree entirely with Dr. Subbotin; we use alcohol not on account of its importance as a nutriment, but on account of its effects as a stimulant or relish."

Prof. Voit's definition of a nutriment is rather more comprehensive than those usually given, but it has the merit of great exactness, and of leaving no doubt as to its applicability to any given substance. Whether this definition or any other be adopted, it is, of course, essential, as a preliminary to the discussion of the nutritive value of alcohol or any other substance, that we should define as exactly as possible what we understand by the terms "nutriment" and "nutrition."

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* On the physiological importance of alcohol for the animal organism. Leibschrift für Biologie. vii., 361.

Although, as Prof. Voit says, alcohol cannot, under normal circumstances, be introduced into the body in sufficient amount to be of any importance as a nutriment without producing toxic effects, may it not be that in those morbid conditions of the system where large amounts of alcohol are borne without causing narcotism, the nutritive properties of the substance really become important, and that patients who are supported by alcohol through periods of great weakness or exhaustion are really nourished and not simply stimulated by it?

A CASE OF RAMOLLISSEMENT ROUGE.

By E. P. Hurd, M.D., Newburyport, Mass.

This disease goes by the name of local cerebritis and acute softening of the brain. The following case is a typical one, as judged by the symptoms during life, although no opportunity was afforded of verifying the diagnosis by an autopsy.

I was summoned, Feb. 24th of the present year, to attend Mrs. D., 64 years of age. Is of a healthy family, and had always enjoyed excellent health previously. She had been for some time suffering from debility. I found her pale, weak, with poor appetite, torpid bowels, and "very nervous." Tongue clean, pulse regular. There was an anxiety and restlessness depicted in her countenance which were well marked. She told me that she had strange sensations. There was occasional numbness in her extremities, which only partially yielded to rubbing; she thought it must be due to stagnation of the blood, but the parts were always warm. There was often pain in the top of the head, and momentary dizziness. She felt as though she were going to be crazy. Some nights she slept pretty well, and other nights she did not sleep at all. But the most marked feature, to her, of her complaint was her utter powerlessness; it seemed as though she had not strength to move. From being a person of active habits, she had been compelled to give up all housework.

I diagnosticated the case to be one of general nervous and muscular debility, and prescribed tonics—as quinine, ale, strychnia, exercise by riding in the open air, and short walks, daily frictions of the entire body, a diet principally of oatmeal and Graham bread, with fruits, vegetables and a little beef; and five grains of chloral at bedtime to procure sleep.

The three or four following weeks I saw my patient frequently. There was no amelioration of the symptoms, as above described. The numbness was very troublesome. There was often a wild, strange feeling about the head, confusion of thought, and forgetfulness. The latter symptom was so marked that it excited wonder in her family. She was so easily excited that if visitors called to see her in the evening she failed to sleep afterwards, and she found it necessary to interdict company the latter part of the day; yet her sleep was often very heavy. She has frequently been known to sleep soundly from 8, P.M., till 7 o'clock the next morning. At other times she would wake up during the night with frightful dreams, and could get no more sleep till the next night. There was still a foreboding of something dreadful about to happen to her. Motor disturbances were noticeable. At times she staggered and fell, on attempting to walk. She was much troubled on account of involuntary twitchings of the muscles. The countenance was assuming more and more a sallow look and haggard expression. There was a decidedly febrile condition at times, with accelerated pulse, which was tense and hard; at other times the pulse was slower than usual, and the surface cold.

I thought it necessary to discontinue the quinine and nux vomica, and allow nothing but a little whiskey at such times as there was coldness and faintness; nor did it seem expedient to continue the chloral. The sleep after taking chloral was too heavy and prolonged. A few grains of powdered lupulin seemed to quiet restlessness quite as effectually as anything. The restlessness became more and more marked. Sometimes she would send for me in extreme terror, and I would be obliged to exert myself to the utmost to arouse her out of what seemed to me to be incipient madness.

There was at no time constipation or vomiting. Ten drops of fluid extract of leptandrin, with a teaspoonful of syrup of rhubarb, taken occasionally at bedtime, was all that was required to keep the bowels in good condition.

March 21st.—There is so much heat and pain of the head to-day, with general febrile symptoms, that I have found it necessary to put her on gruel diet, prescribe the continuous application of cold to the head, a blister to the nucha, and, internally, three drops every two hours of tincture of gelseminum (Wilson's tincture). Half-drachm doses of elixir of valerianate of ammonia have had a good effect.

March 25th.—Patient had a comfortable forenoon. Rode out a short distance in a coach. There was less than the usual numbness, restlessness and spasm. Appetite improved. Afternoon.—Sent for me, as she was not so well. Found her feverish and gloomy. Head hot, pupils of eyes contracted. A strange, wild, dizzy feeling. Prescribed rest in bed and a saline purge. As her medicine was out, I left a mixture containing five drops of Thayer's fluid extract of gelseminum to the teaspoonful; dose, a teaspoonful every two hours. Ice to the head. Midnight.—Was summoned in haste to her bedside. Mrs. D. was a raving maniac. It was with difficulty that her husband, a strong man, could keep her in bed, and her family were in the utmost affliction. I prepared a solution of bromid. potass. ℈ij., with chloral ℈i., to be given at once. This, with considerable difficulty, was administered. I waited an hour, when, as there was no abatement of violence and delirium, I injected, hypodermically, one-fiftieth of a grain of atropia. This calmed her, and in one hour she was in a sound sleep.

March 26th.—Patient was still sleeping at 8 o'clock this morning. A high febrile condition. Skin very hot and dry. Pulse bounding, tense. On taking the hand, I found it fixedly bent on the wrist. The lower extremity of the same side (the right) was flexed and similarly rigid. Attempts to overcome this rigidity were persistently resisted. The spasms were not altogether tonic, for there were occasionally violent jerkings of the extremities of both sides and transient convulsive writhings of the whole body. I ordered six leeches to be applied to the temples, bleeding to be encouraged by fomentations with warm water. The gelseminum mixture to be given every hour. By hypodermic injection, one fiftieth of a grain of atropia was exhibited. As there had been no action of the bowels, a purgative of podophyllin and castor oil was administered. At noon Mrs. D. was wide awake, and partially conscious. She answers questions readily, and knows her physician and acquaintances who call. Has taken a little nourishment. The rigidity still remains, but is confined to the right forearm, which is still bent on the wrist, but can now be easily straightened. The atropia injection was repeated. The oozing from the leech bites is profuse.

There was progressive and rapid decline after this date. The purging failed to give more than temporary relief. Vomiting set in the next day, and continued for the next twenty-four hours. Nothing could be retained but small pieces of ice. The muscles of deglutition became next involved in the spasmodic rigidity; a state of tetanus supervening, which rendered it impossible to administer nourishment by mouth. Then pus began to be discharged in great quantities by the mouth; where it came from I was unable to ascertain. The whole body was now bent to the left side; her position in bed was like that of a bow. There was continually an imperfect coma, from which she could easily be roused. Pupils insensible to light and somewhat dilated. When she has spoken, her language has been incoherent and delirious.

On Sunday, she persisted in getting out of bed and standing up. She would pick at the window curtain twenty minutes at a time. When in bed, would pick at the bedclothes or the dresses of her attendants. There was still a tetanoid condition of the flexors of the right side, though this was, I fancied, partly overcome by the atropia. On Monday, with rigidity of the muscles of the right side, there was paralysis. She lay in bed, in the arched condition before described, unable, apparently, to move that side of the body. She complained of pain when I inserted the hypodermic needle, but was unable to draw away the affected arm. All day she lay in an imperfect coma. Pulse was gradually growing more and more feeble. Cold, clammy sweats set in. At 8, P.M., Tuesday, she sank quietly and died.

These are the characteristic symptoms of softening of the brain. It is seldom that the physicians finds, in practice, a case which in its clinical history so nearly corresponds to the description given in the text books.

There could be no danger of confounding the group of symptoms here detailed with meningitis or non-inflammatory (white) softening. The progress of the case showed that the medullary portion of the brain was principally affected. The early prostration was evidence of inflammation in the cerebral mass, and a consequent loss of nerve power, such as is requisite to sustain the functions of the whole system. The resulting abnormal sensations and motor disturbances point rather to irregularities in the sensory and motor centres than to meningeal or surface irritation. There was not that severe, persistent pain in the head, the early vomiting and constipation which characterize meningitis. That, however, the meninges and supreme centres became eventually involved by the extension of the inflammation is highly probable. I think that the invasion of delirium marked that period.

That there was *inflammatory,* not *white* softening, is, I think, sufficiently obvious from the symptoms, so characteristic of the former:—imperfect coma, with rigidity; tonic spasms, confined more especially to the flexors, with frequent spasms of a clonic nature; and, finally, paralysis without total loss of consciousness. The disease, moreover, as judged by the symptoms, was essentially inflammatory from the first.

In *white* softening, paralysis is one of the earlier symptoms, and the paralyzed members present no early rigidity or contraction, they are flaccid. Neither tonic nor clonic spasms are common to non-inflammatory softening. The symptoms are those of diminished excitement of the brain. Yet non-inflammatory softening may, in its later stages be accompanied by many of the characteristic symptoms of local cerebritis, as when active inflammation is set up around the white softened spot. Such a complication would make the diagnosis more difficult.

In the case reported, the steady ingravescence of the disease is well marked. The congestive stage is denoted by the group of premonitory symptoms indicating general loss of power and impairment of function. Here was evidently some powerful disturbing cause affecting the white substance of one-half of the cerebrum, and, by proximity, influencing the nutrition, and so, in a measure, inhibiting the intellectual centres. An excess of blood there would rob the supreme mental centres of that full nutritive supply in which the condition of wakeful activity depends, and so hebetude, drowsiness and prolonged heavy sleep, would result, only interrupted by such periods of excitement and restless wakefulness as indicated an extension of the hyperæmia to the surface ganglia themselves. Such a condition would naturally result from any cause favoring general cerebral plethora (such as the ingestion of stimulating food or drinks, the air of an overheated room, &c.), and so periods of drowsiness would alternate with periods of excitement, which was actually the case.

The occurrence of mania, rigidity and convulsions marked the stage of active inflammation; the supervention of paralysis, the period of softening suppuration and complete disintegration of the cerebral substance.

As to the causes of this dire disease, they are those of cerebral inflammation in general, and need not be enumerated here. In the case of Mrs. D., the period of life had, probably, much to do with the inception and development of the disease; degeneration of bloodvessels, possibly, favoring the escape of abnormal nutritive plasm, which became an irritant foreign body; or resulting in atrophy of some ill nourished portion which eventually, by softening, became the nodus of active inflammation. It is to be regretted that it is not always in the power of the physician to clear up the difficulties which beset him in striving to account for the causes of a disease by a *post-mortem* examination. I regret that in the case of Mrs. D. I have nothing better than conjecture to offer as to proximate causes.

As to treatment, I think that an early correct diagnosis may save much suffering and prolong life. The error with the case referred to, if error there were, consisted in too long treating the case as if it were one simply of debility. All such premonitory symptoms as have been described should be looked on with suspicion, and care should be taken not, by too stimulating a treatment, to fan the flame of a latent inflammation. A cool, unstimulating diet should be enjoined. Cold to the head and *sedatives*—not narcotics—aconite, gelseminum, veratrum viride, cyanide of potassium, and belladonna would all be indicated. The early application of cups and leeches would be desirable.

When the symptoms of active inflammation set in, there is little that can be done. It is of no use to give calomel or antimony. Bleeding can do no good; large doses of aconite or gelseminum can accomplish nothing; opium, to quiet cerebral excitement, is worse than useless. Chloral may be safe, but the preferable anodyne, relaxant and antispasmodic, in cerebral plethora, is undoubtedly belladonna. The frequent exhibition of atropia, subcutaneously, is the best thing that can be done, and this only makes the patient more comfortable; it does nothing towards averting an issue which was probably inevitable from the very first.

THE first number of a *Medical Gazette* in Turkish has made its appearance. It is printed at the Haïdar-Pasha Hospital.

Reports of Medical Societies.

BOSTON SOCIETY OF MEDICAL SCIENCES.

EDWARD WIGGLESWORTH, JR., M.D., SECRETARY.

APRIL 30th, 1872.—The Society met at the house of Dr. White. Dr. Jeffries in the chair.

Paralysis due to Lesion of Cord with Secondary Degeneration and Exudation around the Bloodvessels.—Dr. Webber described a case of paralysis with extensive changes in the spinal cord, corresponding in its nature with the paralysis ascendens acuta spoken of by Eulenberg, who, in his work on Functional Diseases of the Nervous System, refers to its pathological anatomy as though it were probable there was some organic lesion; but what this lesion is has not yet been decided.

Michael M. W. entered the City Hospital in Dec., 1869. Had had blennorhœa, but denied syphilis. Pains in forehead. Vertigo. Ankles swollen and painful. Under iodide of potassium and iron he was relieved and left Feb. 7th, 1870. Reëntered July 1st, 1870. Between these two dates had had attacks of vomiting and weakness in his legs; he could move his lower extremities in bed, though he was unable to walk. The paralysis extended, accompanied by incontinence of urine and fæces. Died Aug. 12th.

At the autopsy, all the organs seemed healthy, and there was only congestion of the dorsal spinal dura mater and of the grey substance of the lower part of the cord. The microscope showed some degeneration of the nerve fibres of the lumbar and sacral plexus. The cord was softened in the dorsal region, or changed so that it did not harden well. Amyloid corpuscles were found on the circumference, and at the posterior part penetrated deeper toward the centre throughout the length of the cord. At about the middle of the cervical enlargement and in the lumbar region were many exudations around the bloodvessels in the posterior roots, central commissures, and at the base of the anterior roots. A similar exudation was seen in the medulla near the auditory nuclei. This exudation took carmine well, was laminated concentrically, slightly fatty in centre where large masses were found, was not acted on by acids, alkalies or iodine, and did not resemble anything before seen or seen described. The pia mater was thickened with multiplication of nuclei. The cord next the pia mater was extensively disorganized, and generally the nerve fibres did not show well. The vessels showed an increase of nuclei. The cord had undergone the secondary degeneration described first by Türck. Above the softening, the posterior columns were affected; below the softening, the anterior and lateral, and lower still the lateral only. The posterior roots were more degenerated than the anterior in the lumbar region.

The changes were thought to be due, probably, to syphilitic taint, though the changes in the cord caused by syphilis have not as yet been very thoroughly studied. The symptoms were all satisfactorily explained by the results of the microscopic examination, though the gross appearances showed no changes or only very slight ones.

Dr. Webber then placed some sections of the cord under the microscope.

Dr. Ellis suggested the resemblance of the nodules in this case to gummata, the collection of nodules in tubercular disease not being rounded, but occurring as sheets.

Dr. Webber called attention to the fact of the multiplication of nuclei being *in* the perivascular sheath.

Dr. Fitz asked if evidence of syphilis were present elsewhere.

Dr. Webber said not to the naked eye.

Dr. Ellis spoke of the degenerative changes in the spinal cord, common after lingering diseases where there is irregular distribution of paralysis and perversion of sensation. This degeneration is limited; the complicated cases, of difficult diagnosis, are the very ones not reported in books.

Dr. Webber added that although a diagnosis can be made where a case is seen early, and, for example, where there is hæmorrhage into the cord, yet in old cases, seen late in life, an exact diagnosis is almost impossible. Here, not only was the peripheral softening and the inflammation of the membranes and cord itself peculiar, but also the coloration given by carmine, the thin exudation through and among the tissues around the small bloodvessels taking only a faint, pinkish stain.

Dr. Ellis asked if hæmorrhage into the spinal cord is not rare.

Dr. Webber thought it was.

A Case of an Accessory Belly to the Second Interosseous Muscle of a Hand.—Dr. Dwight read a paper recording a case of muscular anomaly, probably unique. He said that the great attention lately paid to muscular anomalies has shown that their number is far greater than had been supposed. Many peculiarities which had been looked upon as very rare have been so thoroughly analyzed that now one hesitates to record them. Consequently any really new peculiarity is interesting to the anatomist, even if the muscle affected be not an important one.

The peculiarity which is the subject of the paper was observed on a subject remarkable for many anomalies. It occurred only on one side.

The accessory muscle arose from the fascia connecting the exterior tendons directly over the base of the third metacarpal. It was about a fourth of an inch in breadth, muscular from its origin and continued a well-defined belly till it reached the joint, where it was enveloped by the fibres of the normal muscle, in union with which it was inserted on the radial side of the third phalanx. Its volume was equal to about half of that of the regular muscle, and its action [as shown by pulling in the direction of its fibres] was nearly as great.

To show the rarity of this small muscle, he referred to the following works:—

Quain says that "the interosseous muscles are subject to some variation in their number and form." He also alludes to an additional palmar interosseous going to the dorsal aspect of the thumb, which is not of very uncommon occurrence.

Henle [Muskellehre] says "exceptionally one or another of the [dorsal] interosseous muscles receives an additional head from the base of the metacarpal or even from a carpal bone of the second row." This would appear to imply that it is not uncommon, but the fact that it is so appears from the elaborate tables of hundreds of carefully studied cases recorded by Mr. Woods, of London, in the Proceedings of the Royal Society, in which there is no mention of a similar appearance, except in the passages to be presently quoted. A conscientious study had not enabled Dr. Dwight to find anything in the works of other authorities bearing on the question.

The following extract is from Mr. Woods's paper in the Proceedings of the Royal Society of London for 1864:—

"*Extensor brevis minimi digiti* with double tendon, one going to the fourth finger. Associated with this are three various slips or displacements of the *dorsal interossei*, arising from the base of the metacarpal, or magnum and unciforme, and attached to the common expansion of the extensor tendons, behind the slips from the interossei. These slips are considered by the author to indicate a tendency to the formation of an *extensor brevis digitorum manus* by posterior displacement of the fibres of the dorsal interossei."

This is by no means the same as in the specimen described, for there the additional muscle is inserted in common with one of the interossei. In the publications of the same Society for the next year (1865) Mr. Woods, gives two cases of much interest. "On the back of both hands was a good specimen of the muscle just described and figured by the author in his last paper as an *extensor brevis digitorum manus*. It was arranged in three slips arising by a common aponeurosis from the magnum and unciform bones, the two outer inserted with the *dorsal interossei* muscles into the extensor aponeurosis at the base of the middle finger, and the inner at the base of the same structure at the base of the ring finger.

This muscle was also found very well marked in another muscular male arm. It will be seen that in it there is a still closer approach to the arrangement of the *extensor brevis digitorum pedis*, inasmuch as the outermost slip is not inserted with the dorsal interosseous into the middle finger, but with the first palmar interosseous into the ulnar side of the index or second digit and its extensor aponeurosis."

The specimen which is described by Dr. Dwight may be looked upon, he thought, as an example of a lesser degree of development of the last-described muscle. Its rarity may be proved by the fact that it is not referred to by any of the authorities quoted (except vaguely by Henle), who nevertheless have minutely described quite as small anomalies.

Electro-therapeutical Apparatus. — Dr. Lincoln exhibited the electro-therapeutical apparatus of Brenner, consisting of a mahogany tablet thirty inches square, upon which are arranged the following instruments:—

1. "Current-selector" or switch-board, for introducing into the circuit any number of elements, up to sixty. Brenner himself prefers the use of pegs to that of the switch, but they are more troublesome to handle.

2. "Upright tangent-galvanometer," the wire of which measures 0·008 inch in diameter and offers 82·4 B. A. of resistance.

3. "Commutator," for instantly reversing the direction of a current, whether galvanic or Faradic, without changing the position of the electrodes in reference to the body.

4. "Rheostat," forming a portion of an

accessory circuit. It contains 2100 units of resistance (Siemens, = 2002·7 B. A. units), and as these are arranged by tens, the instrument enables us to measure 210 grades in the intensity of the current, whether generated by one cell or several. Brenner attaches great importance to its use in treating the auditory nerve, as by it we are enabled to begin with a very minute fractional dose of electricity and to raise the quantity by degrees, so as to avoid the infliction of a sudden shock, which might prove a serious injury.

5. "Rheotome." This instrument acts in two ways, depending on the arrangement of certain pegs connected with it. In the first place, when a constant current is flowing, it can produce a single momentay interruption; in the second place, the current not flowing, it can produce a single momentary passage of the current; and the shock—from the interruption, or from the passage of a current, as the case may be—can be made to last a longer or shorter time by sliding a metal plate in or out. The instrument is essentially composed of a finger of brass, swinging horizontally upon a pivot, and its course impinging upon the plate of metal just mentioned—the current enters at the pivot—and is conveyed through the brass finger to the metal plate during the moment of contact.

6. "Automatic interruption of the constant current." This consists of a "Neef's hammer," similar to those attached to the electric alarm-bell. The rate of rapidity with which interruptions can be effected varies from four to ten in the second, which is sufficient for practical use. The indicator of the galvanometer, which during the passage of the uninterrupted current would mark 35°, points to the neighborhood of 15° and 20° when the current is interrupted by this apparatus; showing that a great quantity of the current still passes.

7. Du Bois-Raymond's "sledge apparatus" for generating the Faradic current. The primary coil contains about 320 turns of wire, the secondary 9970. The tetanizing effects of the current from the primary coil seems greater than that from the secondary; its *quantity* is distinctly apparent in the deflection of the galvanometer-needle to the extent of nearly one degree. The secondary coil gives a spark of a tenth of an inch only, its construction not being suited for the development of the enormous tension which some of Mr. Ritchie's coils display.

The hammer is made in two pieces, the inner of which may be drawn out like a telescope slide for the purpose of retarding the rate of vibration. By weighting it with two or three small copper coins it may be retarded still farther, giving as few as four strokes in the second; the extreme rate of rapidity being indicated by the production of the musical note *F*, proving that 168 interruptions per second are effected.

The motive power of this Faradic apparatus is furnished by two Leclanché elements; the galvanic current is obtained from sixty Daniell's cells, as modified by Siemens and Halske.

The Leclanché element consists of a cylinder of zinc immersed in a solution of sal ammoniac, and a piece of carbon packed with powdered binoxide of manganese and carbon in a porous cell. The cheapness of the exciting fluid—for only one fluid is required—is a recommendation of this form of battery; it is said also to be very constant, and it certainly makes very little trouble or dirt. It generates ammonia gas when in action, which would be an objection to the use of a large number of cells in an occupied room.

The Siemens-Halske element cannot well be described without a diagram. It is a very constant element and requires little attention. The metal and fluids are the same as in an ordinary Daniell's cell, but the diaphragm (of porous clay) is reënforced by a layer of papier-maché some inches thick, which increases the resistance very much.

The arrangement of switches in the apparatus is such that three patients can be operated upon at once, one receiving the current from the primary coil, another that from the secondary, and a third the galvanic current.

The apparatus deserves especial praise for the solidity with which all connections are made, and the accuracy with which the switches are adjusted, and the pegs fitted. The only instrument liable to be injured by careless usage is the Faradic apparatus, especially the hammer; it would not be a proper thing to entrust to the management of a nurse; but it is capable of producing a great range of effects, and its currents are very smooth and equable.

Krüger and Hirschman, of Berlin, constructed the apparatus.

In answer to a question from Dr. Bowditch, Dr. Lincoln said that the papier-maché served the purpose—First, in keeping the zinc and copper at a fixed distance from each other; and second, in offering a great *resistance*, which increases the penetrating force of the current. In passing from the zinc to the copper, the current had to traverse two inches of the densely-packed papier-maché besides the earthern diaphragm.

An Instrument for Determining the Highest Musical Note Audible to the Human Ear.—Dr. Bowditch exhibited a series of König's rods, and said that the highest audible note differs greatly in different individuals. Thus the shrill sound emitted by certain insects and the sharp cry of the bat are inaudible to certain ears, while distinctly perceived by others.

An instrument for determining the limit of hearing in this direction consists of a series of cylindrical steel rods of the same diameter and different lengths, suspended at points one quarter of their lengths from their ends, and giving, when struck, musicals notes ranging from C of the seventh to C of the tenth octave. As tested with this instrument, the ears of different individuals are found to differ by an octave in their power of distinguishing high notes, some persons being unable to hear any note higher than G of the eighth, while others can distinguish G of the ninth octave. In the majority of cases the limit of hearing seems to lie between D and E of the ninth octave, that is, at about 40,000 vibrations in a second. In general, the power of hearing high notes seems to diminish with age, but there are many exceptions to the rule.

The intensity of the note has a decided influence on its audibleness. This may be shown by comparing two rods of different diameters and lengths, both giving, when struck, the note G of the eighth octave. The larger and heavier rod, setting a larger amount of air in vibration, gives a note audible to nearly all ears, while that of the smaller rod is audible to very few.

A set of rods of this sort furnishes a very convenient means of studying the so-called "resultant tones" described by Helmholtz. If, for instance, C and E of the seventh octave are struck at the same time, a note two octaves lower than the lowest of these, namely, C of the fifth octave, is distinctly heard in the mixed sounds thus produced. This is the so-called difference tone, C of the fifth octave having a number of vibrations equal to the difference between C and E of the seventh.

Dr. Blake, in pursuance of the same subject, exhibited a series of König's rods, and said that a difference existed in the rods, according as the steel was of a white or blue temper. This was a tempered scale, that of Dr. Bowditch was an untempered one. He spoke of the practical application of the rods in aural surgery, and reported a series of tests with regard to the hearing distance of these high tones in the normal ear and the highest limit of perception in cases of perforation of the membrana tympani. Dr. Blake's series of rods was a scale increasing by 5,000 vibrations in a second, and ranging from 35,000 to 75,000 of such vibrations. He is at present experimenting with rods of various metals and alloys.

Dr. Green spoke of the objections to experiments based upon distance; he thought variation in the surrounding sounds would make a difference at different times in the hearing power.

A Test for Color-blindness.—Dr. Jeffries spoke of and explained the usual methods of testing patients for corlor-blindness and interruptions of color perception in the visual field in disease. He also exhibited and explained an imitation of the instrument for testing color-blindness shown by Woinow at the last Heidelberg meeting of ophthalmologists. This consists of a rotating apparatus with a disk the centre of which is black and white, next outside a ring of red and green, next a ring of violet and red, and next, outside of all, a ring of violet and green. When rapidly rotated, the centre, of course, appears gray, that is of black and white mixed. The *outer* ring will also appear gray to the *red-blind* patient, as he can perceive gray from the two colors presented, violet and green. The *middle* ring will appear gray to the green-blind patient, since he can see gray by the mixture of violet and red. The *inner* ring will appear gray to the *violet-blind*, as red and green give him gray. Color-blindness is the loss of perception, in whole or part, of one or more of the three energies which we call red, green or violet; since the experiments of Maxwell, Helmholtz and other physiologists are agreed that these must be taken as the three base colors of light. Dr. Jeffries also spoke of some cases of microphthalmos where, although the globe was only minute and the place of the cornea a slightly bluer shade than the sclerotic, yet finest nuances of color could be detected, while vision as to shape and form was very defective.

RHODE ISLAND MEDICAL SOCIETY. ANNUAL MEETING.

The Rhode Island Medical Society held its sixty-first annual meeting in the rooms of the Franklin Society, at 10 o'clock, June 12th, when there was quite a full attendance of members, Dr. Geo. L. Collins, President, in the chair.

Dr. T. K. Newhall, Treasurer, presented his annual report, certified by the auditors, which was received and ordered on file.

Dr. E. T. Caswell, for Committee on Registration, presented the annual report of births, marriages and deaths, for 1870, in print, which was received and entered upon file. Births, 5,215; marriages, 2,362; divorces, 237; deaths, 3,238.

Dr. L. F. C. Garvin, for the Committee on Publication, presented the annual report, which was received and ordered on file.

The Society then proceeded to the annual election of officers for the ensuing year. Dr. Collins, President, and Dr. Gardner, Recording Secretary, declined a re-election.

President—Dr. Lloyd Morton, Pawtucket.

First Vice President—Dr. Fenner H. Peckham, Providence.

Second Vice President—Dr. George W. Jenckes, Woonsocket.

Recording Secretary—Dr. E. M. Harris, Providence.

Corresponding Secretary—Dr. C. W. Parsons, Providence.

Treasurer—Dr. T. K. Newhall, Providence.

Board of Censors—Drs. David King, Newport; Jas. H. Eldridge, East Greenwich; Ariel Ballou, Woonsocket; Otis Bullock, Warren; George D. Collins, Providence; James W. C. Ely, Providence.

Dr. S. Augustus Arnold presented the annual report of the Trustees of the Fiske Medical Prize Fund, which was received and ordered on file. The Trustees awarded no premiums on the subjects proposed by them for 1872. The Trustees propose the following subject for premiums for 1873:—

"Household Hygiene; practically considered with a view to rendering homes the most healthful possible."

For the best dissertation on this subject the Trustees will pay five hundred dollars. The Trustees contribute their fees to the printing fund.

Dr. Collins, the retiring President, retired from the chair with a few words of thanks for the kindness of members to him during his two years' incumbency, and invited Dr. Morton, the newly elected President, to assume the chair during the continuance of this meeting.

Dr. Morton, on assuming the chair, made a brief and appropriate speech, thanking the Society for the honor conferred on him.

Dr. Collins, on retiring, contributed $100 to the permanent printing fund of the Society, which example was immediately followed by Dr. Clapp, and on motion of Dr. Garvin the donations were received and the thanks of the Society voted to Drs. Collins and Clapp.

The following Standing Committees were elected:—

Committee on Registration—Drs. E. M. Snow, E. T. Caswell, Providence; S. Clapp, Pawtucket; J. H. Eldridge, East Greenwich.

Committee on Publication—Drs. H. G. Miller and C. T. Gardner, Providence.

Committee to Audit Accounts—Drs. C. W. Fabyan and E. T. Caswell, Providence.

Committee on Annual Dinner—Drs. T. K. Newhall and J. W. C. Ely, Providence. Dr. Ely subsequently declined, and Dr. F. H. Peckham, senior, was elected to fill the vacancy.

The Board of Censors appointed Drs. C. T. Gardner, of Providence, and D. M. Edwards, of Woonsocket, first and second Orators, and George A. Pierce, Anniversary Chairman, for the next annual meeting; and the report of the Board was received and the appointments adopted by the Society.

Dr. L. F. C. Garvin, of Lincoln, then read the annual address before the Society, upon the subject of "Modern Therapeutics as an Applied Science." It was an able essay on modern therapeutics, compared and contrasted with those of ancient times, and a comprehensive and exhaustive discussion of the subject.

The meeting then adjourned to 2 o'clock, P.M., to partake of the annual dinner at the Aldrich House.

The Annual Dinner.—The members of the Society, with delegates from other Societies, State and city officials, and other invited guests, met again at 2 o'clock at the Aldrich House, on Washington Street, to partake of the annual dinner provided by the Committee, Drs. Ely and Newhall. A large number of members of the Society were present, filling every seat at three long tables, extending the length of the dining hall, and presenting quite an imposing array of doctors of medicine, philosophy and laws.

Dr. E. T. Caswell, Anniversary Chairman, after the alimentary exercises and metaphorical removal of the cloth, officiated as toast master, and read several regular toasts, to which suitable and pointed responses were made, of which for want of room, we can give only the briefest synopsis. His Excellency Gov. Padelford responded for the State; His Honor Mayor Doyle, for the city; Dr. Morton, the newly elected President, for the Society; Dr. Collins, ex-President, for past officers; Rev. Mr. Twining, for the clergy; Dr. Parks, late Editor of the Boston Medical and Surgical Journal, for the Medical Press; Dr. J. B. Upham, of Boston, introduced as "the father of the Great Organ," responded quite happily to the sentiment of "Medicine and Music"; John F. Tobey, Esq., for the doctors of laws; Dr. T. H. Mackie, of New Bedford, for the delegates from other Societies, complimenting the Rhode Island Medical Society and physicians of the State; President Caswell made a very happy response for Brown University, as did Dr. C. W. Parsons for the Rhode Island Hospital; Dr. Geo. Capron spoke quite briefly in response for the medical profession, and the literary exercises closed with a brief, comprehensive and scholarly address by Dr. Geo. W. Carr, in response to the toast, "The Junior Members of the Profession," which was received with hearty applause and commendation.

Dr. Caswell then announced that the sixty-first annual meeting was adjourned, and the company retired from the tables and departed their various ways, with a general expression of the opinion that this had been one of the most successful, gratifying and encouraging annual meetings the Society had ever held.

Selected Papers.

STRANGULATED HERNIA.

By Sir James Paget, Bart., &c.

For a general rule, let me repeat, your first examination of a patient with a hernia supposed to be strangulated should not be with a design to reduce it at once, but rather with a design to make out what shall be done; what are the chances of reduction without operation; what helps shall be used to obtain it, if it be deemed desirable. Of course you may reduce the hernia, if reduction at once be easy; but do not go on trying if it be difficult. If the case be a bad one, you must first decide whether reduction without operation should be even attempted; and, if the attempt is to be made, what and how much it should be. For this decision, here are some general rules, which I find illustrated by my cases.

In very bad cases—as, for instance, when the patient vomits fæcal matter and has peritonitis, or is in collapse, with a small, rapid pulse, hiccough, or other such extreme signs—there should be no attempt at reduction without operation. The risk of the operation is trivial in comparison with that of returning sloughing or ulcerating intestine into the abdominal cavity.

When the coverings of the hernia are so inflamed as to make it probable that sloughing or suppuration has taken place beneath them, reduction should not be attempted without operation; and even when they are less inflamed, none but very brief and very gentle efforts should be made, for success is improbable, and failure may be mischievous.

The longer the signs of strangulation have existed, the shorter should be the efforts at reduction; and the more acute the signs are or have been, the more gentle should these efforts be. Only, here, do not reckon among the acute signs the intensity of pain in recent or greatly enlarged herniæ; for many of the most intensely painful herniæ are reducible with the help of chloroform, though they may need as much force as is in any case justifiable.

The longer and the more numerous and forcible the efforts at reduction made, in any case, before it comes under your care, the briefer and gentler should your own efforts be; if, indeed, you do not at once decide that enough has been done, and that there remains no fair chance of reduction without operation.

If you find that you have to do with a hernia which has been habitually irreducible, and in which you have reason to believe that, without any addition to them, the contents of the sac have become strangulated, you had better operate at once. You are not likely to reduce a protrusion which even before strangulation was irreducible.

Let me now suppose that, observing these rules, a first examination of a strangulated hernia leads to the decision that its reduction without operation is to be attempted: I cannot give a single rule of practice that shall always suffice for the next step after such a decision; but, speaking generally, and of a great majority of cases which come under treatment, it is a safe rule of practice that, after a very warm bath and a few hours' rest in bed—say from three to twelve hours, according to the case—a single attempt at reduction, of reasonable force and length, should be made; that, if this should fail, chloroform or ether should be given; and then, in some cases, but not in all, a second attempt should be made; and that, if this should fail, or if it should not be made, the operation should be performed while the patient is still insensible.

The hot bath should be used in all cases that are not very bad, unless in old and feeble persons, whom it might depress too much. Among these, its place may be supplied by very hot fomentations, or by warm poultices over the hernia and the parts near it; and these must be used as the next best things when a hot bath cannot be had. Helped by rest, all these things are certainly very useful, whether by relieving the tendency to irritable muscular action, or by relieving congestion, or by whatever other means. Especially you may see their utility in hospital patients, who are commonly brought in wretched, chilled and restless, with their herniæ tense and full and very painful, and their abdominal muscles starting into resistance at the least painful pressure. The heat of the bath, and bed, and recumbent rest, may remedy all this; and the hernia may become easily reducible, or may even reduce itself. It is commonly advised to have the bath so hot, and to keep the patient so long in it, that he may be very faint; and during this faintness to attempt the reduction while the patient is still in the bath. I more than doubt the prudence of this advice. It seems to me better to let the patient be simply soothed and relaxed in the bath, then to put him into bed wrapped in warm blankets, lying on his side, on his back with his knees drawn up, or with his pelvis a little raised, and then, after an hour or two of complete rest, to attempt the reduction. The advantage of this plan is shown in the many cases in which the surgeon gets the credit for reducing a hernia which the house-surgeon has failed to reduce. The house-surgeon tries in the bath, and fails; the surgeon, an hour or two later, succeeds, not, or at least not always, by greater skill, but by reason of the more favorable condition of the patient after a time of rest and warmth, and of his better position—lying flat, instead of half-sitting as in the bath. This employment of rest and the bath may be helped by opium whenever the hernia is very painful, and the patient too restless to have a chance of natural sleep. A grain of opium may procure the rest necessary for the quietude of the parts, but is less likely to be useful with femoral than with umbilical herniæ, and less likely with these than with inguinal.

In the old, and in others who may have had inactive bowels long before the strangulation, and in whom fæcal accumulations or abundant air may be in the large intestine, an enema even of a large quantity of liquid should be used; for the emptying of the large intestine may greatly facilitate the return of the hernia. Purgatives, I believe, had better not be thought of, if there be any marked signs of strangulation. There are no clear indications for determining the cases in which they might possibly be useful; and, if they do no good, they may do grievous harm. I do not doubt that some have gained advantage from purgatives; but in my notes and memory I rather find instances of mischief, and certainly no cases in which there seemed reason to think that the patients were the worse for not taking any sort of purgatives after evidence of strangulation.

After the warm bath and rest—and still speaking of only the majority of cases, for in some there is no time for these things—you may give chloroform or some other anæsthetic, and try to reduce the hernia. How you are to do this, I cannot tell you now; nor what time and force are reasonable to be used. You must imitate what you see done by men of repute, and use the best common sense you can. I can tell you some things that you must not do. You must not go to work as if you were resolved to reduce the hernia *per fas aut nefas*; you are not to spend an hour or even half an hour about it, or use all your force, or take off your coat and turn up your shirt-sleeves, or kneel on the bed, that you may press with the more weight; you are not to let half a dozen persons try their hands in turn. You are not to do these or the like things, all of which I have known as the sources of dire calamities. You are to be gentle and self-restraining, mindful of the delicacy of some of the structures you are handling, and that you may do them much more harm than would come of the operation which you are trying to avert. These cautions are the more necessary because, when the patient is under chloroform, you have nothing but your own sense and senses to tell you how far you may go without doing harm. The great value of chloroform and ether is that, by abolishing sensation, they put an end to the muscular resistance to reduction which, whether he will or no, the patient makes when hurt by the pressure of his hernia. Hence they are most useful in the herniæ of which the difficulty of reduction is chiefly due to muscular resistance; in the recent, or in the recently much enlarged; in the inguinal more than in the femoral, and in these more than in the umbilical; in the painful more than in the painless. Chloroform and ether are by so much the most potent helps to the reduction of herniæ, that it may seem as if it would be right to use one of them without waiting for the influence of a warm bath, or recumbency, or any similar means. Sometimes it is right thus to do, especially in herniæ that have only recently come down and are intensely painful. But more commonly, if there would be danger in waiting for three or four hours, it is because strangulation is so far advanced that the operation ought to be done at once, without any previous attempts at reduction. If there be no such extreme urgency for immediate reduction, there can be nothing but advantage in the use of the bath and the three or four hours' rest in bed; for they may make the hernia reducible, or, even if they fail of this, they may cause changes in it which are beneficial for both the performance of the operation and for the probabilities of recovery after it. * * * *

While you are waiting, you may use, in different cases, ice or warm dressings, enemata, aperients or opiates. I cannot tell you the indications for each of them. I am glad to have had no sufficient experience of waiting to have weighed the several values of these things; glad, because I have no doubt that, for every case in which an operation has been avoided by waiting, there have been two cases in which lives have been lost by waiting too long. But there are at least one or two conditions favorable for all cases in which you desire to wait; namely, rest in bed and very sparing food. Nothing should be allowed to disturb the patient's rest, and no handling of the hernia should be permitted. Part of the value of ice and poultices and other applications is this, that they keep all hands off.

Of other supposed helps I will not speak—of tobacco, and curious postures, and shakings with the legs up and the head down, and cupping-glasses, and other like and unlike things. They are ingenious wrong-doings, more dangerous than the operation which they are intended to avert.

In speaking of herniæ as being reducible, I have had in mind only such as can be completely and certainly reduced. But it is not uncommon to meet with cases of strangulated hernia, in which the reduction is doubtful or partial. As I looked through my cases, I found many of these recorded, in which there was delay in sending patients to the hospital, because surgeons believed that part of the hernia was put back, and hoped the rest would soon go; and some in which, even in the hospital, there was mischievous delay through the same fallacious hope. It is not easy to say what takes place in these partial or doubtful reductions. Some patients will tell you that the whole never did go back, and that what now seemed to be reduced might only be an additional protrusion. Sometimes, I think, air is pushed back from the intestine, or fluid from the sac; sometimes omentum is put back; sometimes, perhaps, part of the intestine; sometimes nothing—the whole notion of reduction being fallacious. The liability to deception is greater than you would imagine. You may feel a thrill of receding fluid, or a gurgling of air, which you may suppose to be what some describe as the characteristic gurgling (as if anything of the kind were infallibly characteristic), or something slipping back; but all may be fallacious. There is one practical rule for all these cases. If the symptoms of strangulation be not relieved by the supposed reduction; if the vomiting continue, or the pain, or the patient's sense of distress, or any other of the distinctive symptoms—then, without delay, you must operate. A partial reduction of a strangulated hernia, if it be not followed by a complete relief of symptoms, is in nothing better than no reduction.

I may add, that most doubtful reductions are not reductions; and of the partial reductions, none are safe except some of those in which intestine is put back and only omentum remains in the sac.

Be prepared also for cases in which reduction is, or seems, complete, and yet the signs of strangulation are not relieved. In these, a hernia may be returned *en masse*, or pushed into another sac, or between the peritoneum and fascia; or the case may be one of hernia complicated with an internal strangulation, or one of many other conditions so hard to discriminate and deal with, that I can give only one general rule for their management—viz., that if you can feel a lump at or near the hernial ring, as if there were something which may be a strangulated hernia, then you must operate.

To end what I should say respecting the propriety of operating, I ought perhaps to speak of the condition of the patient as affecting the risk of the operation by reason of age and general health and various complications. Among my cases, I find not only many of the fattest and feeblest, but examples of complication with phthisis, acute and chronic bronchitis, aortic constriction, phlebitis, gastric ulcer, diseased bladder, intestinal disorders of various kinds, and internal strangulation. Patients such as these were one would not wound for any trivial good; but, with a strangulated hernia, the peril of doing the operation can hardly ever be so great as the evil of leaving it undone. Old age and feebleness, fatness, intemperance, or unsoundness of whatever kind, may add to the risks of this, as of any other operation; but all these risks must be accepted. A patient must not be allowed to die with a strangulated hernia, if by any means whatever the strangulation can be relieved; and you must not be averted from the operation by any consideration of the number of deaths that follow it. The deaths after the operation may be 50 per cent.; but the deaths due to the operation are not more than 2 or 3 per cent., and even these would probably have been deaths from the hernia if the operation had not been performed. The great proportion of deaths is made up of those in whom the strangulation has done mischief which the operation cannot remedy. It is not unfair to maintan that, speaking generally, the deaths after operations for hernia are only to be counted as failures to save life, while the recoveries are to be counted as lives saved from certainly impending death.—*Brit. Med. Jour.*

Medical and Surgical Journal.

Boston: Thursday, June 27, 1872.

THE TIME HAS COME.

Under this head, the Philadelphia *Medical Times*, of April last, utters some plain truths in a very frank manner on "the necessity of immediate reform, regardless of consequences, in our plan of medical education," and pays handsome and well-merited compliments to the Harvard Medical School. "Certain it is," it says, "that to-day the cream of medical students—those whom every institution is most anxious to have enrolled upon its list of matriculants—assemble in a medical school which only a few years ago was considered third-rate, but which has now suddenly leaped into the first position in the country, although located in a city which is signally deficient, as compared with New York and Philadelphia, in clinical and pathological material." * * * "Suppose the number of graduates annually be small; such a fact must add to, rather than detract from, the reputation of a first-class medical school, if the few who are graduated be thoroughly educated. And when, later, it shall be known that to be one of the annual few secures respect and insures success, there will be no uncertainty as to the future of the institution they fondly call Alma Mater."

This is very well for Philadelphia, though late. There has never been a want of advantages in Boston for the diligent student; always, in fact, more than could be thoroughly used in the short period of privilege. The country has known for a half century at least, and recognized it more decidedly in the late war, that the Harvard graduates were second to none, but in advance of those from most institutions. It is gratifying, nevertheless, to have it so candidly and frankly admitted that the Harvard Medical School now occupies "the first position in the country."

As in marked contrast with the cordial spirit of the expressions above quoted, which, with the allowances indicated, really represent, we believe, the feelings of all who have the best methods of medical education at heart, we call attention to the views of another of our contemporaries, as illustrated in the following passages. Evidently our friend of the *Nashville Journal of Medicine and Surgery* would confess himself in full sympathy with the ideas of the last President of the American Medical Association as presented in his address at Philadelphia; and would not hesitate to declare the dangerous effects of too much knowledge. Neither the President nor the Editor indicates just the line where a safe amount of knowledge ends and where knowledge that is dangerous begins; but we are to infer that medical students should drink very cautiously of the spring presided over by the muse of the medical sciences.

"Amid the clash and clatter, all over America, for the last quarter of a century, upon reform in medical teaching, our feeble voice has, all along the line, proclaimed, probably medical teaching in America is all wrong, but it has been developed by an

American necessity, and is eminently American, and therefore, beyond all doubt, the best for America, and the tendency is infinitely greater for it to become more so than less so. The sessions are too long, the number of teachers and number of lectures too great. We want more demonstration and less gas. The gas element in all of our colleges is six times as long as the demonstration element. The gas is a remnant of foreign barbarism, and is not at all American, and is bound yet to escape through an American pinhole.

"Harvard lost one hundred and five students last session, by what exchanges call 'the salutary reform'—that is, three sessions. Three sessions, and Greek and Latin, look well, but they are not American. Our exchanges think Harvard will continue this 'salutary reform,' though it reduces her classes to zero; but we know better—Harvard is not going to do any such thing, but Harvard will return to her old way. Do we not all know that the University of Pennsylvania got on stilts once, and lengthened her sessions to six months, her rival poling along her old American keel at four months. Never mind, said the friends of the former, looking upon her empty benches, she will hold out to the last. Not a bit of it, we suggested; she will do a more sensible thing—she will get off her stilts and forswear any such unnatural method of locomotion for life; and she did. * * *

"The great trouble of innovators is, that they will not comprehend that medical abilities are *never* developed by medical colleges. If a man becomes a great physician, he makes himself so after he quits college, and independently of anything he was taught there. A teacher, with his belly full of fire, and every nervous fibril in his organism astrut with electricity, with a memory faithful as a handmaid to his genius, and to the threshold of whose storehouse of learning the writers of all countries and all ages have lain down their contributions; such a man, in an active state of eruption, with lightnings flashing about his mouth, and lava, at a white heat, pouring over his beard, and scintillating among an audience, who, though spell-bound, have each a half-dozen able-bodied *Amens* struggling in his elongated throat, and, like a lighted shell, ready to explode; yes, such a man may inspire one to struggle on amid poverty, neglect and contumely, till the day-star of promise shall peep over his horizon, and beckon him to triumph and glory; but it is the one man, and not the college, to whom he will ascribe his regeneration."

After such scathing and volcanic rhetoric, we hardly have the heart to assure our contemporaries that those who are best informed concerning the present condition and the prospect of the Harvard School say nothing about "getting off her stilts," but they do say and mean that the change in the method of medical instruction shall be something more than an experiment, after which "Harvard will return to her old way." It would be ungracious to suggest that the standard of medical knowledge indicated by our contemporary would do for his latitude, for we hold that the sick man everywhere, in Tennessee as in Massachusetts, deserves the best medical care that the best medical man, educated at the best medical school and to the highest medical attainments possible, can give. The Harvard Faculty is not content to rest satisfied with a standard which for so long has been "eminently American."

How Smallpox is Spread.—A little while ago, somebody traced the propagation of smallpox to the paper-currency in general circulation. And now the *Lancet* has found another medium, equally probable and equally subtle, namely, library-books. The danger from this source is believed to be a real one. In Leicester, England, in consequence of the prevalence of variola, persons at whose dwellings it exists have been officially requested to refrain from borrowing books from the Free Library, and those who already have books are desired to return them to the disinfectant office instead of to the library. The *Lancet* suggests one farther step of precaution, and that a radical one, and would require, in times of epidemic smallpox, that persons borrowing books from libraries should bring a certificate that there is no infectious disease at home. Such a measure is very reasonable and proper in theory, but its practical execution would be something more odious and mythical than compulsory vaccination is found to be in some places.

A New Method of arresting Epistaxis.—Dr. F. Marin, of Geneva *(Journal de Méd. et de Chir. Prat.,* May, 1872), has discovered a new and simple method of arresting hæmorrhage from the nasal cavity. It consists in applying pressure to the facial artery at a point immediately beneath the ala of the nose, where the vessel can be pressed against the superior maxillary bone. In epistaxis the hæmorrhage is usually confined to the anterior third of one of the nasal fossæ, and as pressure upon the facial artery causes a diminution in the flow of blood to this cavity, the hæmorrhage is arrested almost immediately, and this proceeding is therefore recommended as preferable to that of plugging the posterior nares by the aid of Belloc's sound, in attempting which the surgeon is generally pretty thoroughly smeared with blood, and is not unfrequently bitten. Dr. Marin has had occasion to give numerous trials to this method suggested by him, and has generally found it effective. In two instances where it failed, plugging the posterior nares was attended with like result.

POISONING BY VANILLA-BEAN. *Messrs. Editors,*—In the JOURNAL for May 30th there is an extract from the *Med. and Surg. Reporter* on poisoning by vanilla flavoring. It is there stated that Schroff believes that the poison is produced by the use of cashew-nut oil to besmear the vanilla-pods.

Having been poisoned myself a few years ago—together with eight or nine other persons in my family—by "the extract of vanilla," I was led to institute inquiries as to the cause, and arrived at a different conclusion from the above. The food which sickened those of my family who eat of it was custard flavored with the extract of vanilla. The bottle from which the extract was taken had been opened some months previously, and a part of it used at that time without producing any ill effects.

By inquiring among my friends, I learned that one of them, together with a large family of which she was a member, had been poisoned by food flavored with vanilla extract, which was stale and which had been exposed to the air for some time.

As the same manufacturer's extract of vanilla had been used in my family for years without bad effects, and a portion of the same bottle had been consumed some months before without producing any sickness, and as we have since used the same flavoring for ices and food, prepared by the same parties, taking care always to use it fresh, and only in the above instance having been made sick by it, I have come to the conclusion that a change takes place in the extract when exposed for a time to the air, and that this developes some poisonous properties. HAMPSHIRE.

LISTS OF PHYSICIANS IN BOSTON DIRECTORY. *Messrs. Editors,*—In consequence of some oversight in printing the lately-issued number of the Boston Directory, certain errors have occurred in the lists of physicians in Boston, to which I ask permission to call the attention of the profession through your columns.

The following names of Fellows of the Massachusetts Medical Society are erroneously printed in the list of "Other Physicians," although most of them appear also in that of the Fellows of the Society: Geo. A. Bragdon, Geo. W. Copeland, Albert Day, E. A. Gilman, J. T. McSheehy, John B. Moran, Charles P. Putnam, James J. Putnam, N. P. Quint, F. W. Vogel.

The name of William P. Bolles, erroneously printed in the list of "Members of the Massachusetts Homœopathic Medical Society," should be included among the Fellows of the Massachusetts Medical Society. Your obt. servant,

FRANCIS MINOT,
Treasurer Mass. Med. Society.

Boston, June 17, 1872.

PULVIS GLYCYRRHIZÆ COMPOSITUS.—The want of a mild but effective aperient, of convenient form and without any of the disagreeable concomitants, induces Dr. David Page to call attention in *The Practitioner* for May to the compound liquorice powder of the Prussian Pharmacopœia, first introduced into practice in Scotland by Dr. J. Warburton Begbie. It is composed of the following constituents, so prepared as to form when incorporated an almost impalpable powder: Senna-leaves, ℥vj.; liquorice-root, ℥vj.; fennel-seed, ℥iij.; sulphur, ℥iij.; refined sugar, ℥xviij. The usual dose is a small teaspoonful at bedtime in water, with which it is easily mixable, forming an agreeable draught. Children readily take it, with the belief that it is a sweetmeat. The motions produced by this powder are soft but well formed. It will be found especially useful in the treatment of constipation resulting from atony of the bowel.—*Medical Times.*

M. BARTH, who, since Trousseau's death, has had a large share of the consulting practice of Paris, is President of the Academy of Medicine of Paris for 1872.

Medical Miscellany.

GOOD FORTUNE OF THE MASSACHUSETTS GENERAL HOSPITAL.—A few days ago the Treasurer of the Massachusetts General Hospital receipted for the large sum of $446,000, which was paid to him as the result of a provision of the will of the late John Redman. Mr. Redman died some twenty years since, leaving a will by which the hospital was made the residuary legatee of his estate upon the death of a son who had a life interest in it. The advance in both real and personal estate since that time has increased the value of the legacy from the $50,000, which the trustees of the institution once expected to receive, to nearly half a million.

THE CRIMINAL CODE admits a new form of indictment in these latter days:—Assault with intent to become insane.

THE WEST VIRGINIA STATE MEDICAL SOCIETY held its annual session at Wheeling, beginning June 7th, and continuing three days. Various scientific papers of value were read and discussion upon medical subjects was indulged in. Dr. R. H. Cummins, of Wheeling, was elected President of the Society for the ensuing year. The next meeting will be held at Parkersburg Wells.

VIRGINIA STATE BOARD OF HEALTH.—The newly established State Board of Health of Virginia was organized at Richmond, May 18th, by the choice of Prof. S. L. Cabell, of the University of Virginia, as President, and of Dr. L. S. Joynes as Permanent Secretary. The Board consists of seven members, all physicians. Among the matters brought before the meeting for immediate action was the subject of vaccination and re-vaccination, with special reference to compulsory legislation.

Virginia is the second State to follow the example of Massachusetts in the institution of a Board of Health.

COLD ALCOHOLIC TEST FOR ALBUMEN.—Dr. C. R. Drysdale reports from the Metropolitan Free Hospital, that he has tried the cold alcohol test for albumen, recommended by Dr. Betz (*Memorabilien*, 1872), and that it has proved trustworthy in the cases tried by him. Dr. Betz remarks that boiling the urine is not always a sufficient plan when examinations are made in private practice, because albumen is not always thrown down by boiling. Also nitric acid is not certain in all cases. He mentions that a trustworthy and very easily obtained reagent, is ordinary spirit as bought in shops. A portion of the urine is poured into a glass, and over it about an equal quantity of spirit, without allowing the two liquids to mingle. When albumen is present, the alcohol has a milky haze at the junction, and occasionally there are small nipples of albumen seen in the alcohol when the urine is very full of it. This process is so simple that it can always be made use of. According to Dr. Betz, this test will frequently show albumen when we are not inclined to think it exists on account of the absence of œdema, heaviness of the body (which is seen in children), foaming of the urine on micturition, scarlatina or pneumonia. Dr. Drysdale has found the reaction in four cases of chronic albuminuria now under his care at the hospital.—*Med. Press and Circular.*

THE HÔTEL DIEU, PARIS.—The buildings of the new Hôtel Dieu, the construction and plan of which have been so much condemned, are still to be used for the purposes of a hospital, and they will not be converted into barracks, as was at one time contemplated, we believe, by the Imperial Government. The completion of the buildings is at hand, and it is expected that the new hospital will be ready for the reception of patients before June of next year. The wards are lofty, and ample cubic space will be allowed. Wards of about one hundred and fifteen feet long and twenty feet broad are to contain sixteen beds, eight on each side.—*Brit. Med. Jour.*

BOOKS RECEIVED.—Lectures on the Principles and Practice of Physic. By Sir Thomas Watson, Bart., M.D., &c. Two volumes. Philadelphia: H. C. Lea. (From the Publishers.)—The Chronic Diseases of Women, with special regard to their Treatment at Creuznach. By Louis Nichels, M.D. Berlin: Mitscher & Röstell. (From Trübner & Co., London.)—Autumnal Catarrh. By Morrill Wyman, M.D., &c. New York: Hurd & Houghton. (From the Publishers.)

PAMPHLETS RECEIVED.—Minutes of the Twenty-third Annual Meeting of the American Medical Association, held in Philadelphia May 7th, 8th, 9th and 10th, 1872. Pp. 73. William B. Atkinson, M.D., Philadelphia. Price 50 cents.—Annual Report of the City Registrar of the Births, Marriages and Deaths, of the City of Boston, for the year 1871. Pp. 38.

Deaths in sixteen Cities and Towns of Massachusetts, for the week ending June 22, 1872.

Cities and Towns.	*No. of Deaths.*
Boston	113
Charlestown	4
Worcester	24
Lowell	21
Milford	6
Chelsea	6
Cambridge	16
Salem	6
Lawrence	8
Springfield	3
Lynn	12
Fitchburg	6
Newburyport	5
Somerville	5
Haverhill	6
Holyoke	9
	250

Prevalent Diseases.

Consumption	46
Pneumonia	16
Scarlet fever	13
Measles	13
Typhoid Fever	9
Cholera Infantum	9

There were ten deaths from smallpox; nine in Boston and one in Holyoke.

GEORGE DERBY, M.D.,
Secretary of State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, June 22d, 113. Males, 59; females, 54. Accident, 3—apoplexy, 4—anæmia, 1—inflammation of the bowels, 2—bronchitis, 4—inflammation of the brain, 2—disease of the brain, 5—cerebro-spinal meningitis, 1—cholera infantum, 3—cyanosis, 1—consumption, 13—convulsions, 3—debility, 1—diabetes, 1—dropsy of brain, 2—drowned, 3—dysentery, 2—scarlet fever, 7—typhoid fever, 5—disease of the heart, 3—homicide, 2—intemperance, 1—disease of the kidneys, 4—congestion of the lungs, 2—inflammation of the lungs, 7—marasmus, 3—old age, 3—paralysis, 1—premature birth, 3—puerperal disease, 3—stomatis, 1—scrofula, 1—smallpox, 9—sunstroke, 1—thrush, 1—whooping cough, 1—unknown, 6.

Under 5 years of age, 48—between 5 and 20 years, 13—between 20 and 40 years, 25—between 40 and 60 years, 17—above 60 years, 10. Born in the United States, 82—Ireland, 20—other places, 11.

Dec

From July, 1872, to January, 1873.

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AN ADDRESS

DELIVERED AT

The Annual Meeting of the Norfolk (Massachusetts) District Medical Society, May 8, 1872.

By B. E. Cotting, M.D. Harv.

MY FIRST QUESTION

As a Medical Student,—

Its Solution a Sure Basis for Rational Therapeutics.*

Twenty years ago, on the unexpected failure of the appointed speaker, at the solicitation of the officers of this Society, I prepared the paper† which was read at the Annual Meeting. That service was performed in early acknowledgment of the duty incumbent on each member to contribute his allotted share for the advancement of the Society and our common profession. In continued recognition of the same duty I return to note a few of the changes in the interval, and to indicate, in one direction at least, the difficult task we must leave unfinished to our successors.

The Address of 1852 urged the necessity of solving *The First Question* I asked my teacher when, for the first time, I was taken as a medical student into the presence of a sick man;—*what will be the course and result of the disease if left to itself, without medicine?* This question my teacher, than whom never existed a more observant or conscientious practitioner, honestly and frankly confessed that he could not answer; such a case had never to his knowledge been left to itself. The reply rather surprised the young beginner; for then as now, it seemed a most befitting question to ask, and one that should be answered before any rational administration of drugs could be determined on. Elsewhere an answer was sought for, but in vain. The books did not give the desired information. All the cases they furnished had been submitted to remedial agents of real or supposed efficacy. The question appeared never to have been thought of; or, if thought of, not to have been deemed worthy of solution, or even of consideration. Nevertheless it seemed not an unreasonable question; and the resolution was tacitly formed to seek opportunities to solve it, so far as practicable, if only for myself. Some of the results of observations made for that purpose were cited in the paper read to this Society. It had been proved, even at that time, to my own satisfaction at least, that some of the gravest or most painful diseases, left without drugs, but otherwise properly cared for, will go on quite as favorably, and with as many recoveries, as when submitted to customary medication, and much better than when violently, or, as the word then was, *heroically* treated.

Although the Address did not contain any suggestion inconsistent with the firmest faith in the efficacy and usefulness of medicines when properly tested, or in the incalculable good to the sick to be derived from the attendance and care of the educated and scientific physician, yet human diseases had been treated so invariably with drugs, and every recovery had been so universally attributed, by the public and the profession, to the efficacy of the particular drug administered, that no sooner was the statement promulgated that unaided Nature* was adequate to the cure of diseases in a large proportion of cases, than there arose the cry of "heresy."

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* "I prefer to be called a fool for asking the question, rather than to remain in ignorance."—Dr. John Homans (while a medical student, 1860)—to an upbraiding Professor.

† Entitled Nature in Disease; published in the Boston Medical and Surgical Journal, October 13, 1852.

* Nature, "with a capital N," by which is meant, not a "vague external secondary personification," nor a "metaphorical subcutaneous female entity," but the forces and laws of the Universe (to make the statement broad enough) so far as concerned in disease, its existence in the world, its inception in individuals, its progress, culmination, decline and departure (uninfluenced by human interference); and always presupposing an Originator, Law-giver, or, if any one prefers the term, "Great Artificer."

But this cry was also raised, about that time, in regard to some of the foremost men in the profession, who apparently were not very much deterred thereby from proclaiming their convictions to their associates.

New suggestions are seldom received at once without hesitation. Often, at first, they meet with much opposition, though destined, soon after it may be, to be fully accepted. Thus, five years later, in 1857, when Sir John Forbes ("*Nature and Art in the Cure of Disease*") urged with great earnestness a zealous study of the Natural History of Diseases, averring that "on the profounder, more critical, and purer study of *Nature* as manifested *in Disease* rest, in my judgment, the best hopes of improvement in the Medical Art," he was constrained to admit that "the finding of a proper field for such observation and study is by no means so easy a task as might, at first sight, appear," and to declare it to be a lamentable defect that there was "no distinct chair for instruction in the Natural History of Disease" in any of the medical schools. Laboring hard to establish these positions, and feeling, he said, that they were at variance with those of most medical men, the best informed as well as ordinary practitioners, he showed that all along the ages there were numbers of cases so absurdly or so inertly treated that they must have recovered through Nature alone, though the credit of the recovery had uniformly been given to Art. And, on such inadequate cases as these, he was content, as it were in a spirit of compromise, to rest an elaborate plea for a mode of treatment of disease that might "occupy the happy medium between doing too little and doing too much,"—between, on the one hand, the fashion of mystified trifling then coming into vogue, and, on the other, the not less objectionable perturbative measures so often resorted to. On such unstable foundations, and without ascertaining for himself in a single instance what Nature of itself could do, he proposed a method of treatment which, after the manner of the times, he maintained in its result "must be accepted as superior to that which unassisted Nature can supply."

But for going only thus far he was violently assailed at home and abroad. The suggestion of a Chair of Natural History of Diseases seemed particularly obnoxious. An American Reviewer, who himself only the year before had laid it down, in italics, as a rule, that "*no active medicine should be used in any case, unless the evidence is clear that it will effect good*," thus strongly expresses his dissent:—"We do not believe that it is right for a physician to forego, in any case, the use of positive medication where it is clearly applicable, merely for the sake of seeing how the disease will proceed under the guidance of Nature alone"—overlooking his fatal proviso "clearly applicable," and evidently forgetting that he had then so recently declared that "there are comparatively few active medicines of real value;" and that "we need what Sydenham termed a Natural History of Diseases."

While Sir John Forbes throughout his volume thus endeavored to show the necessity of a knowledge of diseases without the interference or influence of medicines, and filled whole pages with the enumeration of the causes of the almost absolute ignorance on this subject, he seemed to give up, as almost hopeless, any expectation of a general effort to remove this ignorance, or to acquire the desired knowledge, in what he justly considered the only sure method; and his American Reviewer, apparently shuddering at the announcement of the idea of letting disease go on without medication of some sort, could not bring himself to allow the right even to make use of the only truly scientific test, although, while preparing the Review, he wrote to the author of the Address of 1852—"I have just been re-reading your Address. I am glad to find your views so consonant with mine, and I hope that the subject will continue to be pressed upon the attention of the profession by different writers, each in his own way, so that the good work of getting rid of over-dosing may go on."

Seldom can there be found better examples than these showing how difficult it is, even for those in authority and most self-relying, to rise above popular tenets, and to overcome the ever-pressing and probably unrecognized influence of what Forbes himself calls the "prejudices of education."

He who trumpets into notice a new agent, be it as lethiferous as chloroform or as inert as cundurango, may reasonably hope to be at once called "one of the lights of the age;" and he who impulsively lauds the virtues of any dangerous method or doubtful expedient may be quite sure of being proclaimed its "apostle;" but he who pleads for a little more caution, asks for a little more proof, points out danger, or exposes inefficiency, is liable to be looked upon with suspicion, or to be held in disfavor.

The suggestions advanced in 1852 had

proved no exception to the general rule. Though many journals and notices of the Address applauded its sentiments, not a few good and true men appeared to be troubled lest the confidence of practitioners in remedies should be disturbed—so that when the author was called upon, in 1865, to give the Annual Discourse before our State Society (the "Solemn Oration," as it is sometimes called), an Ex-President of this District Society, an esteemed friend, in the kindness of his heart, urged that its doctrines should accord with the prevalent opinions of the profession.* This kindly-intended advice was received in the same spirit it was proffered, but it aroused a train of thought which ultimately expanded into the discourse itself.

To the leading object of the Discourse *my first question* naturally followed as a corollary, and received additional force from the demonstration that preceded it. If diseases are a part of the plan of creation, then there must be a plan or law in each one of them, which should be sought out and understood before any attempt can rationally be made to influence its progress or results.

Seven years only have passed since the publication of the Discourse, and yet in this short time such changes have taken place in the opinions and writings of medical men, through many influences, that one would hardly presume to read the paper for the first time now, lest it might appear to some to be merely a compilation of commonplaces pirated from the very journals which in the first instance decried it. A series of quotations might easily be gathered up in illustration; but one, from the *Dublin Quarterly*, 1869, will suffice for an example;—"The law regarding them [epidemics] would seem to be as wide-spread as gravitation itself, and, no doubt of it, the Deity has, for his own purposes, ordained that it should be so; and I believe it will not end till time itself is no more."

An incident in point must be pardoned—one especially gratifying to the author—the recent unanticipated conversion of a life-long friend, who had formerly, very kindly and dispassionately, but rather adversely, criticized the leading doctrines of the Discourse. He has lately recorded his present opinion as follows:—"The doctrine that 'Disease is a part of the plan of Creation,' though at times assailed, has never been invalidated, and, better than any other statement, comprehends and explains the facts appertaining to human ailments."

The great and rapid changes alluded to in medical opinions must astonish our elder members, who, on finding where the advance has taken them, look back to their point of departure. They remember some of the first movements which opened the campaign; but they little thought then that they should live to see such a revolution—for what young men are now taught for true doctrine was considered scepticism less than forty years ago—the heresy of one generation becoming, as is often the case, the established faith of the next. "When, in 1835, the doctrine of self-limitation was announced," says the author of a Prize Essay on Rational Therapeutics, "it was quite common among men to speak of his Discourse [Dr. Bigelow's] as showing that he was unduly sceptical in relation to the powers of medicine. But at the present time, 1857, these views are those of the profession generally." Since then, too, there might perhaps be found admirers of Sir John Forbes's doctrine among those who once wished that he had been forced to retire from the profession years previously, so that such fallacies as his could never have been promulgated; and the author of the Discourse of 1865 now unexpectedly discovers his orthodoxy confirmed by one of last year's orators of the British Medical Association, in a passing allusion to "the *modern heresy* which *forbids* us to seek for design in morbid processes!"

Nevertheless, at this late day, in regard to the "succession of processes" which constitute a disease, the dispersion of the series, its jugulation, eradication, and, in failure of these, its subjugation, by "active" interference, are questions seemingly still open with too many practitioners, and to be incontestably decided *only after the solution* of *my first question*. Although the books and reports of cases are continually asserting, or leaving readers to infer, that such things have been done, or could be done if medical men were only called in season, still results when carefully brought to the test do not show sufficient grounds for such inference. It is noticeable that in the bulletins of the late illness of the Prince of Wales no such intimation appears; the medical attendants having apparently concerned themselves with what occurred from day to day, without anticipations or predictions. And it is further noticeable that the royal person suffered the same changes as the poorest subject is liable to, which would not have been, had skill or appliances been adequate to anything better. Even to such miserable sequelæ as are almost invariably attributed to neglect of some kind, did the case finally proceed. These, which will sometimes happen to the best cared-for, where alleged causes seem entirely inadequate or wholly wanting, raise in this instance a crowd of suggestions which should lead every practitioner to juster views of the limitations of his art.

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* *Parvis componere magna*, "'I trust you will not cast doubts on the efficacy of medicine,' said a distinguished member of our profession, speaking to me of this Address."—Sir WM. JENNER, M.D., &c. Address in Medicine before the British Medical Association, July 27th, 1869.

The proclaimed, and perhaps prevailing, ideas of the treatment of acute rheumatism offer another illustration. The most opposite modes of active medication, general and local, have, from time to time, been announced and advocated, for shortening the disease; or more especially, of late, for preventing serious complications, of which "cardiac affections" seem to be most feared. But rheumatism is self-limited, and cardiac affections are a part of the disease; and, as such, may be the first in the series, or may even exist without any other portion of the body being involved. Cases of the kind have been reported to this Society —one in which the disease was diagnosticated from cardiac symptoms one or two days before any appearance in other parts; and one, where the disease was chiefly, if not wholly, confined to the heart, with only the slightest subsequent appearance, if any at all, in the extremities. Both cases recovered; in the second instance, the heart symptoms entirely disappeared a few years later as the patient grew to womanhood.

If *my first question* had been thought of, and an attempt made, whenever practicable, to answer it, for Asiatic cholera, on and since its appearance nearly half a century ago, the profession might have established, possibly by this time, some rational course to pursue, instead of being left to rush blindly, as much at a loss as ever, into all sorts of treatment; and we might have been saved the mortification of witnessing a recantation, at the last hour, of one of the most eminent and influential teachers, now recommending a course quite opposite to that which he has taught with "silver-tongued eloquence" for forty years past. If the plan now advocated by him is right, then countless patients have suffered at the hands of his numerous disciples up to this time. He virtually admits that he has hitherto been wrong; but seems not quite sure that the course now pursued is the true one —"its recommendation must, after all," he says. "lie in its comparative success." He does not tell us with what to compare it; an erroneous method of treatment, which had been discarded, would manifestly be an imperfect standard. The test we have suggested would be scouted perhaps by teacher and pupils; yet, think you that his patients would have suffered more, or run greater hazards, in its trial than under a, now avowed, wrong management? "I will not pretend to say," says the teacher, of the cases he himself treated, "that these persons might not have done quite as well if they had been left entirely to themselves." This, certainly, is the only answer that can yet be given; and, as, in this formidable disease, we still find no settled principles of treatment, a thorough knowledge of its Natural History would be as great a gain to future victims as to the profession.

How humiliating, also, the last public announcement, if true, of the last American collection of professional formulæ, said to contain all the most recent remedies of the most distinguished living American and European physicians and surgeons, that "these are in marked contrast with the obsolete and hackneyed formulæ to be found in the formularies now in the market." If such a wonderful contrast has been wrought so recently in the prescriptions of the eminent living practitioners, to what can it be attributed; for previous prescriptions were but yesterday considered of equal value and efficacy, though now termed obsolete and hackneyed? What evidence have we that the newly vaunted are better than the recently discarded formulæ? To what standard or test can such a question be brought in hope of a satisfactory solution? Is it unreasonable to require something real by which to fix that standard, when it can also be said of the last grand "System of Medicine" (Reynolds's) that "it contains none of the absurdities of works of twenty years ago," although it was then thought that the works and cyclopœdias of that time were so nearly perfect that, while possibly something might be added, there would never be need of much alteration or amendment?

All such pitiable oscillating from one extreme to another, with a current gratulation of superior success in each, till a prominent teacher is led to declare, in his lately published Lumlean Course, that "there are few conclusions more striking than the general one of the uncertainty of the art"—all this might have been prevented had the lesser risk been run of ascertaining, for a standard of comparison, what disease would of itself do, before interfering attempts were made to modify it by perturbative agents, whose real influence for good or for evil cannot be irrefragably proved without such a standard.

This is said in no spirit of "Nature Worship" so freely denounced by writers, nor in "dismal want of appreciation of the true scope of Medical Art and Science"—but in the interests of both Nature and Art. We would hail with delight any "remedy," though discovered by a never so "audacious experiment," if fully proved to be beneficial to the sick—nor ask for the why and the wherefore, believing the reply of Molière's student, *quia est in eo*, to be the most philosophical attainable. But, awaiting this proof, we would have the true physician sometimes at least "a spectator" (until he understood the natural succession of the processes he desired "to meddle with," so far as possible, with their inherent tendency to good or evil results), in order that—and for that solely—he might *know*, not guess, whether "a disease is best let alone or treated by rest and diet," or "whether he can shorten its duration or abridge its sufferings" by any means within reach. This is what we would have him at times "a spectator" for, and it seems strange that, among a class of thinking men in this so-called enlightened age, any should still be found so fettered by the "prejudices of education" as to oppose unconditionally all such observations, since, "in proportion as the judgment is most cultivated there is the least yielding to the 'must-do-something' impulse,"* and the more especially while the present state of therapeutics continues to be confessedly unsatisfactory, or, as a writer in the *Practitioner* of only last year has it, "undeniably one of chaotic confusion."

A great change has indeed been effected, and a great advance has been made, yet these "prejudices" occasionally crop out in the journals we have quoted, and are now and then to be seen lingering in the addresses annually given to students by eminent teachers. One of these, last autumn, declared that he held "the doctrine [of leaving cases to Nature] to be as dangerous as the more ancient doctrine which allowed men to undertake cures in rashness and ignorance"—as though any scientific observations undertaken in the cause of truth, and in the interests of humanity, could be as dangerous as the rude experiments of "rashness and ignorance." The lecturer's lament, sorrowful as it seems to be, that there is a "school" in England inclined to such observations and entertaining the doctrine he inveighs against, is truly encouraging, and marks a great progress in breaking down conventionalisms and "prejudices." The doctrine is quite familiar in this vicinity; has ceased to shock our immediate neighbors; and has begun to be received by some at a distance. For an example of this among many, in an annual address given last year in an adjoining State, it is said "if a case is doubtful it is wiser and safer to let Nature manage it alone"; and, in regard to giving too much medicine or giving too little, "the latter is the safer of the two." In this there is no leaning to "rashness and ignorance."

It was the fashion within the memory of living men to call the spasmodic and tumultuous essays of "rashness and ignorance" by the popular phrase "heroic treatment"—but that day is past. He who withholds the *anceps remedium* is no longer to be called a sceptic, or a timid old woman. "Do not let me hear that called heroic treatment," said Dr. Wilks in a lecture at Guy's Hospital, 1866, "where much and powerful medicine is given. Such treatment is more often dictated by ignorance and cowardice. * * * I call that young man a hero, and his was heroic treatment to insist on a man lying in bed, eating nothing, and taking no medicine." But even this latter heroism, as a distinction through the doctrine involved in it, is also fast passing away. Physicians, who a dozen years ago would have shrunk from admitting the doctrine, now, consciously or unconsciously, advocate it, as though it never had been called in question; and the lamentations of opponents plaintively attest its spread throughout the profession, here and elsewhere. For a little while longer only, will it be thought necessary to becloud its trial by a specious appellation, as that of the "nutritive plan," or the "mint-water treatment;" as though nutrition must not always be an essential in any treatment, or mint-water could be considered an agent of power even by the most credulous.

The solution of *my first question* does not require an abandonment of any other line of inquiry, or method of investigation into the nature of disease, or the best mode of its management. On the contrary, every suggestion, from whatever source, promising improvement in the knowledge and treatment of disease is to be most heartily welcomed; only its real value to the sick man must ultimately be tested by reference to this solution. Let every conceivable effort be zealously made to ascertain all the characteristics and medical properties of all known or discoverable substances, and to catalogue them in Dispensatories; let chemistry torture out their elements, and authoritatively designate the changes undergone in the system when they are taken into it; let physiology indicate, if it can, the exact tissue, or element, a given drug will ultimately find its way to and act upon, be it a nerve of the heart or blood corpuscle; let the action upon animals be sought out with diligence; furthermore, let the several effects of all proposed substances be carefully observed upon the human economy in health; and then, after that, in what Waring, one of the latest authorities, calls "the only sure way of ascertaining the true properties," in disease also; remembering, according to another high authority, "that whenever we give a man a dose of medicine we really perform an experiment," so little is as yet known of its real action—let all these several methods be followed out to the utmost in a truly scientific spirit, omitting none of the "refinements" of the day—and let no one of us underrate for a moment the brilliant results already derived from such sources—still *the one thing* will be lacking, if the Natural History of the course and events of undisturbed disease is not sufficiently known to be taken for a standard and a test.

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* Herbert Spencer. The Study of Sociology.

The effect of a medicine on the system is one thing; the benefit to be derived from it, if any, may be another and quite a different thing. Sleep, for instance, is the frequent termination of a recoverable case of delirium tremens, and, as such, anxiously watched for by sympathizing attendants; but the sleep procured by opium, as used in that disease not many years ago, seldom ended the complaint, but sometimes apparently the sufferer. Delirium and wakefulness are often distressing accompaniments of typhoid fever, but the quiet and sleep produced by a hypnotic may prove more dangerous than the evils it is intended to remove. Perspiration is often considered a good sign in the course of a disease, but is it in reality more beneficial than the fever-paroxysm that preceded it? Philosophically speaking, are the last events of a disease any more curative than the earlier ones—each in its own order passing its allotted stages? Why need we so constantly act upon the supposition that disease, whatever our theory of its causation, is necessarily something added to, or else something taken from the system, seeing that such a supposition is gratuitous, that disease may be only (as Sir William Gull says) "a life-process of a perverted kind," and that we as yet know so little of the actual significance of external manifestations.*

"The Art of Medicine," says the Father of Medicine, "would not have been invented at first, nor would it have been the subject of investigation (for there would have been no need of it), if, when men are indisposed, the same food and other articles of regimen which they eat and drink when in good health were proper for them, and if no others were preferable to these. But now necessity made medicine to be sought out and discovered by men, since the same things when administered to the sick, which agreed with them in good health, neither did nor do agree with them." Such was the origin of the Art of Medicine; its crowning glory will be an *exact knowledge of the best management of the* SICK MAN, what food for his nourishment, what measures for his comfort and safety,—for the *sick man is the disease*, according to the last and highest dictum of the eminent attendants on the Prince of Wales; and *the science of the sick man* includes as an essential the answer still sought for to *my first question*.

This question of mine, thus asked in the verdancy of youth, has been ever-recurring through a somewhat extended and satisfactorily successful term of professional service. Some of the attempts at its solution have, from time to time, been laid before this Society. That there is a lurking hope that they have had some beneficial influence on the manner of viewing disease, and its treatment, here and elsewhere, I shall not be so disingenuous as to deny. To have pulled at the oar in the right direction is of some satisfaction, though the bark might have reached its destination, and gained the prize, without such assistance. This question, asked of myself, before prescribing, at the bedside of each patient in succession, has saved many a one from much of the perturbation inculcated in the books of past generations, and taught too inconsiderately even now, at home and abroad, in the schools. That it has saved from disaster and death it may be presumptuous to assert; but it can be declared with confidence that it has never endangered a single life, nor added to the sufferings of a single individual. If students were generally to begin professional life in this way, their faith in real remedies would increase as they proceeded; and not, as in too many instances, end in complete distrust at last, after a "career made up of a series of failures and successes" in which they seemed to be only insignificant participants.

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* True enough in strict science; too true in the ordinary routine of the profession. "From a Report of the Hampstead Fever Hospital, it appears that at various times such large proportions of cases sent into the Hospital as 40 or 50 per cent.—indeed in one month 54 per cent.—were those of patients not really suffering from the diseases stated in the medical certificates under which they were admitted, and for which the Hospital was erected."

"Dr. Murchison, in his Report of the Fever Hospital at Islington, bears witness to the same facts."—*London Medical Times and Gazette*, Aug. 13th, 1870, p. 176.

Moreover, the desired solution, if it could be satisfactorily obtained, would forever silence the plausible argument of adventurers and impostors, who, no matter how preposterous or nugatory their treatment may be, claim that because recoveries may have followed their treatment they themselves and their methods are worthy of confidence—for it would then appear, even to the common understanding, that such a supposition is untenable; but in the words of the "solid and accurate" Oesterlen, "so long as physicians appeal to nothing more certain in their practice * * * they must be content to let every one else, even charlatans, appeal to *their* experience; and * * * the sick will necessarily place the same confidence in, and award the same thanks to them, as to the most able physician."

As we have in part endeavored to show, a very great advance has been made within the last quarter of a century in the study of the Natural History of Diseases; and the scepticism in regard to perturbative treatment has already borne most promising fruit. Still the coming student will find the work only partially begun, with abundant necessity remaining for earnest observation and candid investigation. Happily, however, though but begun, progress is less difficult now that the way is opened and the direction pointed out. Incentives also are not wanting. "It is," says the *British Medical Journal*, editorial, Jan. 13, 1872, "It is in comprehending, noting, and defining this course [of disease] and its stages, and interpreting the precise degree and incidence of the inner development of the process, and measuring its effect, that the great triumph of modern medicine consists." Hence expectation is aroused; fulfilment should not be too long deferred.

"Since the publication of Sir John Forbes's book," says Dr. Johnson in his Address in Medicine before the British Medical Association in August last, "and partly, no doubt, in consequence of that publication, our views as to disease and its treatment have undergone a very great change. A purely expectant treatment is now as common as then it was rare. It is now fashionable and orthodox to trust to the curative powers of Nature, and to doubt the therapeutic power of Art. The pendulum has swung from one extreme to the other." To the young men of the profession this announcement from an influential observer offers unusual assurances. The obstacles in the way of their fathers-in-medicine need no longer to greatly impede their progress. Let them avail themselves of present opportunities while they can. "Life is short, opportunity fleeting," said the great Master; pendulums do not tarry long in an extreme. While it is "fashionable and orthodox," since every one instinctively conforms in some degree to the tendencies of his time, let them strive unceasingly to solve for themselves and others, *my first question*,—that they may have in the solution a surer basis for their faith in their Art, and thus become better guides to the sick than their predecessors.

As for the still often-expressed fear that individual success would be ruined, and the profession reduced to a nullity, should such investigations become general, nothing can be more groundless.

In all ages, and in all countries, the most successful, the most confided in, and ultimately the most honored, have been those, who, with no obnoxious pretensions to personal superiority, have been guided more thoroughly than others by Nature itself in their care of the sick. Of the truth of this, the late recipients of royal favor and a nation's gratitude, in old opinionated father-land, are notable examples. Personal success depends upon far other qualifications than ability to deal out nostrums and specifics. To be eminently successful, say our teachers, and their words are worthy of all acceptation, requires, in addition to adequate learning and science,—the kindness of heart-and-manner of a gentleman, to put one spontaneously in the place of the sufferer, however humble, that he may be done for as one would wish in like circumstances to be done by,—balance of character,—steadiness of purpose,—uncomplaining patience,—self-denial,—rectitude,—sagacity,—sympathy, with firmness capable of assuming the expression of inflexible sternness,—a certain amount of personal experience and responsibility conjoined with the talent for comprehending and applying its results.* These, according to our teachers, are some of the requisites for personal success. Whoever has these need not fear a loss of occupation. That there are such in our Society, such in the State, such in all countries, admits no shadow of doubt; and they are they who, in the exigencies of individuals and of the State, will be sought out and chiefly depended upon.

The Medical Profession is essential to every community; henceforth no civilized people can possibly do without it. Were any or all of the drugs in popular repute proved to be useless; were it even found that there is no particular medicinal agent essential to the best treatment of disease, of which, however, there is not the slightest apprehension, the value of the profession, as such, would not be diminished, nor would it become, as one reviewer has coarsely expressed it, "just about good for nothing." It has, as we have before and frequently intimated, higher and nobler purposes. Never in the memory of the oldest was less medicine given than at the present day, and never was the profession, the truly regular and scientific portion of it, held in higher regard by the people. Said a commoner within hearing a day or two ago, "there is a great deal of *real respect* for educated physicians everywhere. After all, they are the best and most substantial men we have. In country towns they are invaluable."

The profession which has members with the qualifications and influence we have described may well endure the insolence of scoffers, the gibes of the thoughtless, and the fears of pusillanimous friends, for, akin to sacred teaching, no human employment confers a greater good upon the race, or is in fact more truly valued by mankind. It is deeply grounded in the necessities of human nature, and cannot be undermined; but its usefulness will be vastly increased, and placed on firmest foundations, and it will be held in still higher estimation when it shall have added to its already great and varied acquisitions a full solution to *my first question.*

Honors Declined.—Profs. Billroth and Brücke, of Vienna, have been offered chairs in the University of Strasbourg. They have, however, decided on remaining in Vienna.

A CASE OF SCALPING.

By Theo. F. Breck, M.D., Springfield.

August 15th, 1871. Miss E. W., aged 21, an employé of a Springfield manufacturing company, while reaching to take something from a shelf above her head, caught the net covering her hair, and her hair also, on a revolving shaft two inches in diameter, which was making 128 revolutions per minute. Her entire scalp was torn off, with the subjacent muscular and other tissues, down to the pericranium, from the fifth cervical vertebra posteriorly, to the bridge of the nose anteriorly, and laterally from ear to ear, including the skin of both eyelids and a piece of skin two inches square from the left cheek.

I reached the factory some thirty minutes after the accident, and found the patient sitting on the floor, with her hands clasped round her knees, and apparently very calm and collected. There was very little hæmorrhage; her pulse was 80, about normal, and her respiration regular and not rapid. She was immediately removed to her home, and the wound dressed with a weak solution of carbolic acid. No attempt was made to replace the scalp, as it was torn into shapeless fragments.

During the next twenty-four hours she was given milk and stimulants freely, and morphiæ sulph. gr. ⅛ every three hours.

Aug. 16th.—Patient very comfortable; complains of no pain. Pulse 80, full and regular. Treatment continued.

Aug. 17th.—There has been considerable hæmorrhage the past twelve hours, which, upon removing the dressings, was found to come from the supra-orbital artery. It was checked by pressure and the application of ferri persulph. Patient somewhat excited. Pulse 110.

Aug. 18th.—Passed a comfortable night, and is much refreshed. Pulse 105, strong.

Aug. 19th.—Upon removing the dressings, suppuration was found to have begun, and the wound was dressed with ungt. creasoti. Bowels freely moved by enema. Opiate discontinued. During the next two weeks the patient's condition steadily improved. She then had severe inflammation of the left eye, resulting in its destruction. The origin of this trouble was a fragment of a lead pencil which she had behind her ear at the time of the accident.

It is now nine months since the accident, and the process of restoration has been very slow. At times the skin forms very rapidly, then what has already formed will slough off, leaving the whole wound an ulcerating surface.

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* This last clause is from Sir Henry Holland's *Recollections of Past Life*. The other "requirements" are from various sources not needing special acknowledgment.

Various applications have been made, but with little benefit. The patient's health is excellent, she being able to go about and attend to the various duties of life. The question is, will skin ever form over the entire surface of the wound?

About the time of this accident, several cases very similar occurred; one in particular, at the Elgin (Ill.) watch factory. I should judge, from the description which I received from the attending surgeon, that it was identical with the present case. There the scalp was replaced, but with no success, as it sloughed off on the fourth or fifth day.

I have advised the patient to submit to Reverdin's operations of skin transplantation, but she is very unwilling to allow any surgical interference.

Reports of Medical Societies.

BOSTON SOCIETY OF MEDICAL SCIENCES.

EDWARD WIGGLESWORTH, JR., M.D., SECRETARY.

March 26th, 1872.—The Society met at the house of Dr. Warren. Dr. Richardson in the chair.

Temperature-regulator for Water Baths.—Dr. Bowditch showed an instrument for regulating the temperature of water baths in chemical experiments. The apparatus consists of an oval glass bulb hermetically sealed round the end of a glass tube. Both bulb and tube contain mercury. The apparatus being placed in a water bath the temperature of which it is desired to regulate, the heat causes the mercury to rise in the bulb and close the lower end of a smaller tube which can be adjusted at any desired height inside the larger one. Through this smaller tube the gas is conducted to the burner which warms the water bath. The closure of the lower end causes, therefore, a diminution of the flame and a consequent lowering of the temperature. As the temperature falls, the mercury sinks in the larger tube, the lower end of the smaller tube is again opened and the supply of gas is increased. The instrument is thus self-regulating. By adjusting the small tube at different heights within the larger one, the temperature of the water bath may be kept constant, within 1° C. at any desired height for an indefinite length of time. Various instruments to accomplish the same end and involving essentially the same principles have been constructed and used at different times, but the present one is considered to be quite as accurate and much more simple than any heretofore constructed.

Test for Arsenic in Wall Papers.—Dr. White then showed specimens of dark green, emerald green and pale green wall papers, the latter two containing arsenic, the last diluted in its color. He spoke of various tests, perhaps the best being the addition of one drop of ammonia to a piece of the paper laid in a cup, to dissolve out the color, and the subsequent addition of nitrate of silver which then causes a yellow precipitate of arsenite of silver. It should be borne in mind that arsenite of silver is soluble in an excess of ammonia. The common idea is that any change of color on the addition of ammonia proves the presence of arsenic. The fact is that the pale green paper shows a faint blue color, but the others only after standing for a while and when examined side by side with white paper, &c. In the dark green papers, arsenic is not present as the rule. A chrome green printed over the lighter arsenical greens gives a comparatively innocuous paper. So also glazing or sizing.

In reply to Dr. Richardson, Dr. White said that rough papers gave off the arsenic more readily than smooth.

In reply to Dr. Warren, Dr. White stated that the older the paper the more readily is the arsenic detached.

Reagents for Causing Transparency in Microscopical Specimens.—Dr. Webber spoke of the merits of oil of cloves in the preparation of microscopical specimens. It is not so volatile as oil of turpentine, and preparations may be kept in it for examination for a day or two. If carbolic acid is used, the preparations must be washed with chloroform before Canada balsam is used; whereas with oil of cloves, Canada balsam can be used at once and the preparations do not harden so soon.

Dr. White asked if vibrios were found when oil of cloves was employed.

Dr. Webber had not tried to find these.

In reply to Dr. Bowditch, Dr. Webber said his preparations had been from the brain and spinal cord and the fibrous tissue cleared up quickly in oil of cloves.

Dr. Edes stated that copal varnish could be used at once after carbolic acid.

Dr. White remarked that after a year or two his specimens prepared with Canada balsam had run after having been left on their sides.

Dr. Fitz said his specimens prepared with Canada balsam and glycerine cracked after a time.

Dr. Edes mentioned that copal varnish had been recommended by Dr. Dean for sections of the spinal cord, since it was more easily prepared than to dissolve Canada balsam in chloroform.

Dr. Warren considered that the balsam thus prepared was apt to soften. He had found a very durable article could be obtained by liquefying the balsam by means of heat, avoiding air bubbles.

Dr. Edes thought this would depend on the condition of the balsam before solution; if this were hard, then it would also be hard after evaporation.

Dr. Wadsworth had found that Canada balsam when used with oil of cloves tended to shrink for months or a year. Oil of cloves was also objectionable as producing a tinting of the specimens.

Dr. Warren added that it caused at times a too excessive transparency.

Rhythmical Activity of the Vaso-motor Nerves.—Dr. Bowditch then spoke of the rhythmical activity of the vaso-motor nerves. Under the influence of these, the small arteries of the body are kept in a state of tonic contraction, affording thus a certain obstacle to the passage of the blood. Increased activity of these nerves is indicated by a rise in blood pressure as measured by a manometer in one of the large arteries. If a float carrying a pen is placed upon the mercury of the manometer, the variations of the blood pressure may be recorded on a revolving cylinder covered with paper. When thus recorded, the blood pressure is found frequently to undergo periodical variations, indicated by a waving line drawn upon the cylinder. These variations are caused by more or less rhythmical contractions of the small arteries under the influence of the vaso-motor nerves. The accumulation of carbonic acid in the blood, as in asphyxia, increases these variations, in consequence, as is supposed, of an irritation thus produced of the vaso-motor centres in the medulla oblongata.

Whether these rhythmical contractions of the vessels are peristaltic in their nature is a disputed point. There are many reasons, however, for thinking that this is the case, and some authorities explain in this way the fact that the arteries are always found empty after death, the blood remaining in the system, after the heart stops beating, being all driven to the venous side by the peristaltic movements of the vessels.

The tracing exhibited was obtained from a rabbit which had been curarized and kept alive by artificial respiration. The quicksilver manometer was in connection with the carotid artery. Just before taking the tracing, the animal had been partially asphyxiated by suspending, for a time, the artificial respiration. The amount of variation of pressure as shown in the tracing is about 12 mm. of quicksilver, and the period is from 5–7 seconds.

Dr. Edes asked if the same condition of things obtained in other animals as well as in rabbits, which latter show it also so plainly in their ears.

Dr. Bowditch said yes, in dogs for instance.

Dr. Warren showed a specimen of *syphilitic blood* under the microscope.

Dr. White said that experiments in New York recently had shown more Lostorfer-corpuscles in normal than in syphilitic blood.

Dr. Warren added that sarcinæ had been found after the blood had been drawn a certain length of time.

Dr. Warren stated that Wedl declared the little glistening bodies to be drops of fat from the sebaceous glands, that these were concealed at first by the crowded blood-globules, but became apparent if a stream of water was passed through the preparation; that the vacuoles, moreover, resulted from decomposition.

Dr. Fitz said he had been more successful in finding the bodies mentioned by Lostorfer near the edge of the covering-glass, where the blood-globules were less crowded.

Dr. Warren concurred in this, and said it was best to take but a small drop of blood.

Dr. Fitz added that coagulation of fibrin and setting took place at the edges and the corpuscles were seen moving about in various currents.

Dr. White remarked with regard to Neumann's opposition to Lostorfer's theory, that Neumann had begun by accepting the views of Hallier, and as the result of his own investigations had come gradually to disbelieve his own previous views. His testimony was therefore more valuable than that of a new man like Lostorfer.

Professor Lewis A. Sayre, M.D., of this city, has been made a Knight of the Royal Order of the Wasa by the King of Sweden, in consideration of his services to surgery in that country.—*The Med. Record.*

Bibliographical Notices.

Dictionnaire Annuel des Progrès des Sciences et Institutions Médicales for 1870 *and* 1871. Par P. Garnier, Médicin, &c. &c. Paris, January, 1872: G. Baillière. 12mo. Pp. 684.

This Dictionary, noticed heretofore more than once by this Journal, is again at hand. Its introduction contains a good *résumé* of its contents, and gives also the plan which its author has had in mind in its compilation.

To quote from the Preface :—" In accordance with the want everywhere more and more felt of keeping one's-self well acqainted with the progress of human science, we believe this volume will be as heartily welcomed as the previous ones have been. The journal passes quickly by, disappears, and is with difficulty consulted when wanted. The book, on the contrary, lives ; and with the alphabetical order adopted in this Dictionary, nothing is more easy than to find what has been newly said or done regarding any subject sought for. Every year brings to light new annuals. In addition to the English reports of Dr. Dobell are the Italian Annual of Dr. Schivardi, and the German Jahrbücher edited by Prof. Stricker ; but no other besides this attempts a completeness of medical science in all its branches, wherever real and practical progress is to be fonnd, whether in book, brochure, memoir, article or note. In this respect we believe this superior to all others for the medical practitioner."

The author, at the beginning of his introduction, explains the non-appearance of the Dictionary for 1870. The sad Franco-German war, the prolonged siege of Paris, and the consequent interdiction of all communication with the external world, caused both a failure of medical news and of the means of publication. Naturally, the writer can speak only in the most bitter terms of the Germans, and is not inclined to give them the praise that is their due for their devotion to medical science. He remarks :—" The rupture of relations with the new German Empire has suspended all communications from that source, but the experimental and speculative character of almost all the works which emanate therefrom, causes us scarcely to regret their omission, and our readers have sustained no great loss."

The volume contains reports of the learned discussions of the Academy of Medicine and other Medical Societies of Paris upon Alcoholism, Maternities, Vaccinia and Variola, Arsenic and Purulent Infection. In the discussion of the last-mentioned subject are brought out the late German theories upon Septicæmia, and a new cause, osteo-myelitis, pointed out by Messrs. Gosselin and Demarquay, and which the blood-making action of the medulla of bone tends to confirm. It is stated that the German theory of the formation of pus, that it is wholly a mechanical process, hardly stands the test of criticism.

Attention is called to the article on Hemiplegia, to two excellent monographs on Abortive Typhoid Fever, and to what is denominated *La Myosite Ossifiante Progressive*—a disease as yet but little known to most physicians.

In surgery there are important statistics upon amputations. A reference to the article shows them to be largely derived from American sources. Notice is also taken of numerous successes in reduction of dislocations by what is called the method of continuity, in which the continued traction of elastic bands is employed. There are articles upon Epidermic Grafting, on Ovariotomy, on the employment of Gastrotomy for the removal of adherent and interstitial tumors of the uterus. Mention is made of the proposal of Prof. Thomas, of New York, to employ the same operation for irreducible inversion of the uterus.

But especially in therapeutics, says our author, one finds complete accounts of the advantages and dangers of the employment of three medicines which are much in vogue, viz., carbolic acid, chloral and bromide of potassium. The benefits of the first of these articles have been exaggerated, and proofs of the danger of producing gangrene have been brought forward. M. Tillaux has recently observed well-marked gangrene to be induced in the case of three wounded men from an injurious application of the acid. Sixteen pages are devoted to a monograph regarding Chloral, besides a very considerable space allotted to it in the articles upon Insanity, Cancer, Chorea, Whooping Cough, &c. It is in epilepsy that the third remedy has received its principal application, but not always, as has been supposed, without injury.

The study of the antagonism of poisons, pursued for some years past, has succeeded in establishing some new points—especially the antagonism of chloral and strychnine.

Such are a few of the points regarding the plan and the contents of the Dictionary.

In conclusion, we cannot but express our conviction that the book has much that is of scientific and practical value to the physician. F. W. G.

Pulmonary Consumption: its Nature, Varieties and Treatment. With an Analysis of one thousand Cases to Exemplify its Duration. By C. J. B. Williams, M.D., F.R.S., &c., and Charles Theodore Williams, M.A., M.D. Oxon., &c. Philadelphia: Henry C. Lea. 1872. Pp. 315.

Dr. C J. B. Williams, to whom is due the origin of the book now before us, is best known in this country from the "Principles of Medicine," published some years ago, at a time when the author was Professor of Clinical Medicine in University College. His opportunities for the observation of pulmonary consumption have been numerous, and, aided by the valuable assistance of his son, he has at last given to the medical profession the long-promised volume. In bringing forward his views, a careful selection and analysis of cases under observation for a long time seem to have been made, and the clinical aspects of phthisis have received very thorough treatment at his hands. Dr. C. T. Williams has devoted much thought and labor to the drawing up of statistical tables, which present many interesting features, to be regarded almost in the light of well-substantiated facts.

The father pays the following compliment to the son: "His assistance in this department has been the more saisfactory to me, because I have neither taste nor talent for that kind of work, which is nevertheless indispensable where precision and accuracy are required." Very valuable information is also obtained in certain instances from the class of patients whose histories have been made use of.

The experience of most clinical teachers, as presented in print, at least, is, as a rule, largely, if not almost entirely drawn from hospital cases. We find in this book, however, an analysis of one thousand cases selected from the middle and upper classes, well-to-do people, accustomed to all the benefits, as well as to all the disadvantages of living under so-called favorable conditions.

In considering hereditary influence, the duration of the disease, the remedial effect of change of climate, &c., such cases are of extreme value.

The remarks upon treatment are deserving of a careful consideration, based as they are upon an experience of forty years, during which time a confidence seems to have been acquired which must prove very satisfactory to the possessor. We infer that Dr. C. T. Williams writes with his father's authority when he states with regard to night-sweats that "there is no lack of agents, of which one or the other is pretty sure to answer the purpose;" and "the medicine we have found to act as a specific on night-sweats is the oxide of zinc, in doses of two or three grains, in the form of a pill at night." How closely will the experience of the American physician coincide with this statement?

The book is one well worth possessing, is more than readable, and will serve as a handbook for one desirous of information with regard to the clinical features of a disease which so uniformly runs on from bad to worse.

An Investigation concerning the Mechanism of the Ossicles of Hearing and the Membrane of the Round Window. By Charles H. Burnett, M.D.

In the forthcoming number of the *Archives of Ophthalmology and Otology*, Dr. Charles H. Burnett presents a very interesting series of investigations on the mechanism of the ossicula and of the membrane of the fenestra rotunda. These investigations are made with especial reference to the movement of the ossicles and of the fluid within the labyrinth in response to the sonorous vibrations conveyed to the membrana tympani upon fresh temporal bones taken from both sexes between the ages of 6 and 45 years. In preparing the specimens for observation, the floor of the tympanum was cut away as high as the fenestra rotunda, till it and the promontorium were fully exposed.

The preparation was then firmly fastened in a vise in such position as to be readily approached by a microscope and easily illuminated, and so as to expose the ossicles from below and the membrane of the fenestra rotunda at an angle of about 45°. As sources of sound, four organ pipes respectively of 50, 140, 630, and 1160 v.s. were employed, the sound being conveyed to the meatus by a flexible tube.

Upon producing a note upon the pipe thus connected with the ear, the ossicula were seen to vibrate in excursions bearing a fixed relation to each other, at the same time their motion was communicated through the labyrinthine fluid to the membrane of the fenestra rotunda, the excursions of which maintained an almost constant relation of equality with those of the stapes. The excursions of both the ossicula and the membrane varied with the pitch of the pipes, the longer excursions corresponding to deeper tones. The results of the measurements of the excursions of the ossicula and membrane as given in Dr. Burnett's concluding tables are worth a careful study, especially where the observations were made under an artificially produced intralabyrinthine pressure. One preparation, which in the natural condition did not respond at all to the vibrations of a pipe the note of which gave 630 v.s. under a pressure upon the labyrinth of $\frac{1}{60}$ atmosphere, gave excursions of the following lengths: At point of long process of malleus, 0.008 mm.; at point of long process of incus also 0.008 mm: at the head of the stapes 0.004 mm., and at a pressure of $\frac{1}{30}$ atmosphere, one-half of the above.

In one preparation, in the natural condition tested by a note of 140 v.s., the length of the excursions of the membrane of the fenestra rotunda equalled that of the malleus.

From his observations, Dr. Burnett makes the following deductions:—

1. The excursions of the ossicula bear a fixed relation to each other.
2. The excursions of the ossicula are communicated through the labyrinthine fluid to the membrane of the fenestra rotunda.
3. The excursion of this membrane generally equals that of the stapes, but it may equal that of the membrana tympani.
4. The pressure within the labyrinth increased beyond a certain limit causes cessation of action of ossicula and membrane of fenestra rotunda; this occurs sooner in connection with high than with low notes.
5. If the intra-labyrinthine pressure be removed or greatly diminished, the ossicula may continue to vibrate but exert no influence upon the membrane of the fenestra rotunda. C. J. B.

Medical and Surgical Journal.

Boston: Thursday, July 4, 1872.

A SYSTEM OF RATIONAL THERAPEUTICS.

The Address of Dr. Cotting, with which we initiate the eighty-seventh volume of the Journal, will arrest the thoughtful attention of all who peruse it; and we need hardly commend it to the special attention of our readers. However much it may excite criticism with regard to the methods which it suggests, the discourse will be universally recognized as an earnest and conscientious endeavor to arrive at something better in therapeutics than the profession has hitherto been able to attain; to develope a system in the treatment of disease which shall be founded on something more rational than tradition or empiricism.

How fully the attempt to provide radical improvements in therapeutic methods is accomplished in this Address, each reader will judge for himself. Upon one point, however, all must agree, namely, that greater attention on the part of physicians to the natural history of disease is imperative, before much agreement in the application of drugs can be reached. Physiological study alone can do but little; pathology is as yet unable to accomplish much; clinical observation is the chief avenue by which we may arrive at some sort of systematic principles to guide our treatment of disease. In this direction much has already been done, and the perturbative therapeutics of our own day is in striking contrast with the heroic perturbativeness of past generations. But much still remains that is unsatisfactory, unsystematic, traditional; and the profession is still in need of some rational method. Herein are such discourses as Dr. Cotting's useful; if, in themselves, they fail, perchance, to convince physicians, they nevertheless stimulate earnest, thoughtful study; they arouse original ideas; they serve to destroy the sense of dependence on traditional routine. The very reforms in medical treatment which we of to-day are wont to magnify as in such marked and gratifying contrast with the modes of our medical fathers, are the fruit of just such a radical and zealous spirit as that which characterizes the Address in question. With whatever reservations one may make as to the obvious difficulties in the way of carrying out the letter of the discourse, in the search for a more rational system of therapeutics, certain practical deductions may well be drawn. To "prove all things," and to hold fast what is proved; to administer drugs in every instance with a distinct and direct end in view, not as a matter of empiricism, nor as a matter of routine, believing as little in the absolute efficacy of medicines as in their absolute inefficacy; to make the medicamenta always secondary in treatment, and to give the least consistent with the greatest good; these are some of the lessons which such a discourse suggests. The time of heroics and of specifics in treatment is passing; the time of fixed and systematic principles in therapeutics is yet to come, to be taught in medical schools and to be practised at the bedside. Every honest endeavor, however radical, to solve the problem is to be hailed as better than indifferent reliance on a venerable but unfruitful conservatism.

The Educational Standard of Harvard.—The following quotation from the address of President Eliot, at the Commencement Dinner at Harvard University last week, needs no comment:—

"The country stands in great need of better trained professional men. It is one of the crying evils of our American system, or rather lack of system, of education, that the common periods of professional study are absurdly short, and that our institutions of secondary education—our high schools and academies—do not systematically bring young men up to the professional schools and deliver them well fitted for professional study at the gates of these schools. The University means to persevere in the good work of raising the standard of its professional schools at whatever present sacrifice of numbers. The Harvard degrees will, therefore, have a serious meaning and a real value."

Vaccination as a Cure for Smallpox.—Dr. Grieve, of the Hampstead Smallpox Hospital, has put the curative power of vaccine lymph to the test in the way recommended by Mr. Furley, as alluded to in a recent number of the Journal, viz., by injecting large quantities under the skin. Seven cases were treated in this manner. The results were not at all satisfactory. Two men suffered severely from the local effects of the hypodermic injection of lymph, and the treatment employed did not produce the least ameliorating effect on the disease in any of the cases. One of them, in fact, died of malignant smallpox.

How Homœopathic Converts are Made. Prof. Henderson, of Edinburgh, avowedly one of the leaders of homœopathy in Scotland, and before his adoption of the new practice a physician to the Edinburgh Infirmary and a Professor in the University, owed his medical conversion, it is said, to a curious incident. The story is attributed to the late Sir James Simpson. Dr. Henderson had been induced by Abercrombie to investigate the subject of homœopathy, and he made certain researches which he mentioned in public as having struck him. Simpson, some time before that, had received from a well-known homœopathic chemist a case containing a set of phials filled with globules, which he had never used. These, he said, he should be glad to hand over to Henderson, and the latter with pleasure accepted them. He used them, and was so struck with their effects that he declared himself convinced of the truth of the homœopathic doctrines. Unfortunately, it turned out too late that he had unwittingly deceived himself; for the case with its phials had long been a plaything for Simpson's children, who used to empty out the little globules into heaps and fill the phials from these indiscriminately. It need hardly be said that this was not known to Simpson when he gave Henderson the case, but it became known to him afterwards and he made Henderson aware of it. But Henderson had gone too far to recede, even if he had desired to do so, and he became a declared practitioner of homœopathy.

It will be noticed by our readers that the present number of the Journal contains more than the usual amount of reading matter. It is our purpose to occasionally issue numbers which, like the present, by extra pages, shall relieve us of accumulated material and make room for fresh contributions, which are always welcome.

From Continental Journals.

Hypertrophy and Lengthening of the Femur and Tibia in a Case of Syphilis.—At a late meeting of the *Société Médicale des Hôpitaux*, M. Guibout exhibited a patient from one of the wards of *Saint Louis*, suffering from tertiary syphilitic ulcerations, whose right leg had undergone considerable lengthening. Both femur and tibia were found to share in this lengthening, which amounted to at least two-thirds of an inch. M Guibout remarked that hyperostoses are, as a rule, confined to a limited portion of a bone, but that in case of this patient, two entire bones exhibited throughout a well-marked hypertrophy, as manifested by their increased thickness as well as length, showing that, under the influence of a syphilitic diathesis as in case of scrofula, the process of nutrition and growth may be inordinately stimulated, inducing hypertrophy of the bones, without deformity.

M. Bergeron observed that he had seen an analogous hypertrophy of the bones of the leg in the case of a scrofulous patient. —*L'Union Médicale*, April 20, 1872.

Hydrate of Chloral.—The following résumé is taken from the third edition of the work on this drug by Prof. Oscar Liebreich.

The action of hydrate of chloral depends upon the formation of chloroform in the blood. When administered in appropriate doses, it produces, in the course of 10–20 minutes, a natural sleep, which comes on quietly, and lasts from four to ten hours. After awaking, the patient may continue in a drowsy state for several hours, but when this feeling has disappeared, no other unpleasant after-effect is experienced. On the contrary, one usually feels refreshed, as after an ordinary night's rest. The sleep produced, then, by this hypnotic, differs in no respect from the natural physiological sleep. If the sleeper is aroused, perfect consciousness is at once restored. The pupil of the eyes, which contracts during this sleep, is dilated again when the individual awakes, as in the case of normal sleep, but differing in this respect from the sleep produced by opium.

The circulation of the blood and the respiration are both retarded during the sleep induced by chloral, but not more so than in the case of ordinary sleep. Chloral interferes in no way with the process of digestion, tending rather to stimulate the appetite. In exceptional cases only is vomiting induced. The temperature of the body does not seem to be influenced by its use. Congestion of the brain, such as is sometimes produced by opium, has never been observed to follow the administration of chloral. The antispasmodic effect is produced only by comparatively large doses. As an anodyne, also, large doses are required. As a sure anæsthetic, too, it is effective only in very large doses, such as may be followed by serious results, so that it is not to be recommended for this purpose.

As will be inferred from the above, the administration of chloral is indicated in all cases of sleeplessness, whether attended by fever or not. It may be given advantageously in all cases of convulsions, especially those depending upon some lesion of the central nervous system, without regard to the acute or chronic character of the affection. As an anodyne in neuralgic affections, in the lancinating pain of cancer, and the like, its value is rather doubtful. In these cases, it seems to be more efficacious when administered in connection with morphine. Chloral, owing to its pungent, acrid taste, is contra-indicated in all affections involving the destruction of the mucous membrane of the primæ viæ. If given at all in this case, it should be in the form of an enema, or else largely diluted with water. It should not be given in arthritis. In typhoid fever, and in all diseases of the heart, it should be administered with great caution, and in very small doses. In hysteria, it seems to induce the convulsions accompanying this affection, and its use is therefore contra-indicated.—*All. Med. Cen. Zeitung,* March 23, 1872.

A New Treatment for Psoriasis.—However much dermatologists may differ with regard to the appropriate treatment of psoriasis, upon one point they have thus far been pretty much of one mind, and that is, absolute impossibility of any radical cure of this most obstinate affection. Wilson warns his students that this is not a disease on which to build a medical reputation, and although he avers that the eruption may be made to disappear for the time being by the prolonged administration of arsenic, he admits that neither arsenic nor any other known medicine will prevent it from returning again, and generally within the same year. The treatment of the Vienna school of dermatologists, which consists more particularly in vigorous frictions with soft soap, and the external application of tar, carbolic acid, carbonate of potash, sulphur, &c., appears to be attended with more brilliant results, so that, in the wards of Prof. Hebra, these eruptions may be seen oftimes to melt away in the course of a few weeks. But here, too, the relapse is none the less certain. Hebra has openly confessed, in his Handbook, that of all the patients he has had under his care on account of this disease (and their number exceeds 1000), only a single instance has come under his notice in which the patient, having been once cured, did not suffer from a relapse. The treatment recommended by Dr. Buck, in a recent number* of the *Berliner Klin. Wochenschrift*, is said to be attended with much more favorable results than have been attained by any other remedies, inasmuch as the cure is rapid and a recurrence of the eruption rare. After a series of experiments with nitrate of silver, tincture of iodine and acetic acid, the conclusion was arrived at that the latter agent was the most rapid and radical in its effects.

The exact method of making this application is as follows:—First, the superficial scales are to be removed by the aid of frictions with soft soap and warm water, after which different portions of the diseased skin are to be attacked by the acetic acid, which is to be painted on by means of a small camel's-hair brush. The extent of skin which can be daily treated in this manner will depend very much upon the susceptibility of the patient to the action of the remedy, his ability and willingness to endure the consequent smarting, which would appear to be by no means inconsiderable. As the patient becomes more tolerant of this caustic, the applications may be made more frequently, and a larger area may be painted at one sitting. As the result of the application of this agent, the tissue becomes white and puffs out, while the surrounding skin becomes red and inflamed, all of which is attended by a moderately severe smarting, which usually subsides in the course of fifteen minutes. The layers of epidermis, which at first are rendered softer, soon dry up and assume the character of thin, horny scales, which in a few days either fall off of themselves or are readily detached, after which the application of the acid is to be renewed. If the smarting continues for any length of time, or if a severe irritation of the surrounding tissue is produced, as indicated by extensive swelling and redness, the treatment is to be suspended for the time being, and some soothing application (such as lead wash) is to be made to the irritated tissue. The acid may be applied in this manner from one to three times daily, as the patient may wish, until the red, indurated and thickened tissue is entirely removed, and its space supplied by a smooth, soft skin of the natural color. No eschar remains upon the affected spot. In cases of long standing, a dark-colored pigment may somewhat discolor the skin for a time, but even this disappears after a while, which, in cases where the psoriasis has had its seat upon the face, is a matter of no little importance to the sufferer. Upon the healthy tissue the acetic acid exerts little or no effect, acting merely as a rubefacient.

The time required for the accomplishment of a thorough cure varies from four to eight weeks, depending upon the degree of vigor and persistency with which the treatment is applied, and also upon whether the eruption is of long or short duration.

As a matter of fact, Dr. Buck has not found the pain and smarting any real objection to this mode of treatment, the small amount of suffering being readily borne, and that the more cheerfully, when it becomes obvious that the beneficial effects are immediate and decided. One case is related of an affianced young lady, who was affected with an abundant eruption of psoriasis upon both arms, legs and back, which she was desirous of being freed from before the nuptial ceremony. An energetic treatment was begun, and continued with such effect that at the end of seven weeks the eruption had entirely disappeared; and now, after the expiration of six years, there has been no return of the disease.

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* April 1, 1872.

Regarding psoriasis as a strictly local affection, Dr. Buck has invariably discarded the use of any internal remedies, such as arsenic, carbolic acid, &c., and the results of his external treatment above described seem to have been attended with uniform success. One case is reported of a young lady, æt. 30, whose body was almost entirely covered with diseased patches *(psoriasis universalis)*, varying in size from a split pea to the palm of the hand, whose cure was effected inside of eight weeks. In *psoriasis syphilitica*, which is not strictly included under the same head, the ordinary anti-syphilitic remedies are of course indicated. The acetic acid treatment appears to have been pretty thoroughly tested for a number of years by Dr. Buck, in his hospital wards, and he confidently recommends it to general practitioners, maintaining that it can be carried out *tuto*, if not both *cito et jucunde.* To those whose appetites have often succumbed in vain to nauseating doses of arsenic, so empirically prescribed by the English school of dermatologists, the announcement of this new and simple method of cure will be particularly gratifying.

TREATMENT OF INTESTINAL WORMS.—Mr. William Dale has given considerable attention to the various remedies proposed for the relief of these parasites, having resided in a locality where they were prevalent, and has arrived at the following conclusions:—

1. For tæniæ (tapeworms) he gives preference to the male shieldfern *(Aspidium felix mas)*. Turpentine, though pretty efficient, if given in an effectual dose, is apt to produce strangury. Kousso is difficult to obtain in an unadulterated form, and is uncertain in its action. Kameela is objectionable on account of the severe griping pains it induces. To prepare the patient for a dose of shieldfern, no food should be taken after breakfast, except mutton broth or tea. In the evening a dose of castor oil, or of compound senna mixture, is administered with the object of evacuating completely the contents of the intestine, so that the worm may be exposed to the full action of the vermifuge. Upon the following morning, the male fern is to be taken, in the dose of one drachm and a half of the liquid extract, rubbed up with half an ounce of mucilage; this mixture is then added to about two ounces of milk, which is the favorite food of the worm, and therefore the best vehicle for the administration of the medicine. The patient should lie quiet for two or three hours after taking the dose, otherwise it is apt to cause nausea and faintness. At the end of that time, another aperient dose may be required, since the male fern itself does not always purge. Nothing in the form of food is to be allowed until the bowels have been evacuated, with the exception, perhaps, of a little broth or tea, or brandy and water in case of faintness. This whole process should be repeated at the expiration of a week, though as a rule, the entire worm is killed and expelled by the first dose. In rare cases, three separate doses are necessary. The head is seldom found, owing, perhaps, to its small size, and possibly to the change it undergoes from maceration in the intestinal juices, so that the discovery of some of the smaller joints may be regarded as tolerably satisfactory evidence of the destruction of the worm.

2. For the round worm *(Ascaris lumbricoides) santonine* is recommended as a specific, and repeated small doses are advised, instead of a single full dose, since the latter is apt to produce some disagreeable symptoms, such as irregular pulse, singing in the ears, vertigo and nausea. A partial suppression of urine may follow the administration of even a small dose, but this is only temporary. The proper dose for a

child five years old is three or four grains every night at bedtime, which is to be taken with the following restrictions: A light meal of mutton-broth with very little bread may be allowed, but no food should be taken after this. The santonine must be taken in dry sugar or honey, and is more efficacious when no liquid is swallowed immediately after. As in the case of tapeworms, the vermifuge should be preceded by a brisk cathartic, such, for instance, as the mistura sennæ comp., which acts so efficiently upon the small intestine. The powder *(santonine)* should be taken every night for a fortnight, and as it is not itself aperient, it may be necessary occasionally to administer a cathartic.

3. The short thread worm *(Oxyuris vermicularis)* inhabits the lower portion of the intestine, and can generally be removed by enemata. Of these, a solution of common salt in an infusion of quassia (in the proportion of two ounces to a pint) is suggested as simple and efficacious. If this treatment fails in entirely dislodging them, they are probably resident higher up in the colon. It is then advisable to continue the injections, and at the same time administer by the mouth small doses of aloes in combination with iron and quinine. For children, wine of aloes with syrup of ginger may be ordered. If this treatment be continued for a fortnight or three weeks, the patient will rarely be further troubled with the annoyance.

THE PATHOLOGY AND TREATMENT OF SEA-SICKNESS.—The unfortunate victim of this most depressing malady, if he has retained the use of his intellectual faculties sufficiently to allow him to analyze his subjective symptoms, cannot fail to have observed that many causes contribute to induce and aggravate his sufferings.

Dr. Copeland has said that sea-sickness is the result of the depression of the semilunar and allied ganglia, produced by the motion of the vessel. Dr. Chambers thinks that the principal cause is the relaxation of the œsophageal sphincter, while the majority of writers consider that the phenomena are mainly due to disorder of the central nervous system. Thus, Dr. Hooper regards sea-sickness as arising from a depressing effect on the brain, produced by the motion of the ship, and suggests as the only remedy lying perfectly still with the head low, by which an *increased* quantity of blood is thrown to the brain. Sir J. Alderson has recently maintained an opposite view to this, considering that the cause of this complaint is rather the increase of blood in the brain, due to the fact that when the body descends with the ship, the blood falls less quickly than its containing vessels, and so tends to produce pressure on the brain, these successive impulses causing vomiting. Dr. Alderson's theory is illustrated by an ingenious analogy drawn between the blood in its vessels, and the mercury in the tube of a barometer. Dr. Frederic Pollard, in a recent paper on this subject, maintains that this illustration of the barometer is an inaccurate one, affirming that if a barometer be allowed to fall, the glass and the mercury will begin to move under the action of gravity at precisely the same moment; and so far from the mercury having a tendency to lag behind, its greater specific gravity tends to make it fall more quickly than the tube, the result being that it carried the tube down at a greater rate than that at which the latter would fall if it were empty. While it may be imagined that the blood is actually jerked upward against the brain by successive blows of the sea on the ship, which would naturally cause a series of small concussions adding something to the mental and bodily distress, yet it is maintained by Dr. Pollard that this will not explain the occurrence of sea-sickness in ordinary cases, when the ship rises and falls without violent concussions. It is obvious, moreover, that merely assuming the recumbent posture would not, as has been asserted, prevent the unpleasant symptoms.

Dr. Pollard favors, therefore, the theory of Dr. Carpenter, Mr. Bain and others, who consider that the mental and bodily prostration arises from the continued action on the brain of a certain set of sensations, more particularly the sensation of a want of support. "This feeling, arising from the sudden loss of support, as when the footing or any prop that we lean upon suddenly gives way, is one of the most disagreeable kind. Should the accident have been perilous to life, as when the foot slips close to the edge of a precipice or a rope cracks in Alpine climbing, a sickening feeling seizes the brain, the whole frame is agitated, and cold perspiration is felt all over." The phenomena of sea-sickness are therefore to be attributed to the constant repetition of this feeling of loss of support, consequent on the pitching and rolling of the ship, a feeling which resides essentially in the muscular system, although the effects on other senses contribute towards it. Thus, the sight of continually shifting lines and surfaces is an important matter; and on board steamer the constant vibration, the noise of the machinery, and evil smells of various kinds, are other items in the elements of causation.

As regards treatment, since sea-sickness arises from certain impressions on the senses, the obvious indication is to render these sensations as feeble as possible. Application of the mind to an engrossing book will keep it off for a short period, but the mind will speedily become alive to the sensations which force themselves on its attention. In order to lessen these sensations as much as possible, however, the patient should preserve the recumbent posture, as near the centre of the ship as possible; he should lie on a thickly padded couch, so as to diminish the vibration. Bad odors should be removed by efficient ventilation. The eyes should be shaded. As regards drugs, Dr. Pollard favors the administration of hydrate of chloral, as recommended by Dr. Döring, of Vienna, to be taken previous to the departure of the vessel, and to be repeated as often as necessary.—*The British Medical Journal*, June 8, 1872.

ON THE PRESENCE OF BACTERIA IN THE DIPHTHERITIC FORM OF PUERPERAL FEVER.—Dr. Waldeyer has in four instances examined microscopically the diphtheritic deposit on the walls of the uterus, with reference to the presence of bacteria and vibriones; he has examined, moreover, in the same connection, the contents of the lymphatic vessels as well as the exudation occurring in peritonitis, pleuritis and pericarditis. In all these cases he has found numerous bacteria, in the diphtheritic patches, filling the space between the pus corpuscles and the fragments of gangrenous tissue; in other places the bacteria were mingled with the pus corpuscles, and contained within them. In the exudation of peritonitis these parasites were particularly numerous, abounding not only in the fluid, but within the pus corpuscles. As to their form, they were for the most part round, but in some instances cylindrical. While no great importance can be assigned to the presence of these bodies, Dr. Waldeyer considers that, where they occur in large numbers, the disease assumes a more severe type, as in the case of *nephritis bacterica* reported by Klebs and v. Recklinhausen.—*Arch. für Gynäkologie*, III., 293–297.

REMARKABLE CASE OF EXTRA-UTERINE FŒTATION.—Dr. Metcalfe Johnson reports a case of extra-uterine fœtation, the remarkable feature of which is the length of time which elapsed between the conception and the escape of the fœtus—a period of forty-three or forty-four years. The health of the woman during this interval continued good, while the catamenial discharge was restored, and continued up to the age of 45.

According to her statement, when at the age of 26, being, as she believed, at the full period of pregnancy, she felt labor-pains coming on, and sent for the doctor. After the lapse of three days, a consultation was held, and a diagnosis of extra-uterine fœtation was pronounced. She then became very ill, and was confined to the bed for three months. After this she was removed to the seaside, but shortly returned home with no hope of improvement. Recovery, however, slowly took place, and in twelve months' time she was able to resume her employment as a washerwoman. The catamenia returned in about four months. The bone removed by Dr. Johnson was a perfect parietal bone. About three months previously, other bones had been discharged in this manner, while thirty years ago she also passed some small bones by the anus, which she was told by a midwife were fingers. The woman still exhibits a slight enlargement in the left iliac region, but is strong and healthy.—*Med. Times and Gazette*, June 8, 1872.

Medical Miscellany.

HARVARD MEDICAL SCHOOL; RESIGNATION.—Dr. R. M. Hodges has resigned his position as Adjunct Professor of Surgery and Clinical Surgery at the Medical School.

THE MEETING OF THE AMERICAN OPHTHALMOLOGICAL SOCIETY which was to be held at Newport, July 18th, has been postponed till the third Thursday in July 1873; on account of the intended absence of many of the members for the purpose of attending the International Ophthalmological Congress in London on the 1st of August.

HONORS TO PROF. GROSS.—Prof. S. D. Gross has received the honorary degree of D.C.L. from the University of Oxford, England.

A NEW MEDICAL SCHOOL has been established at Wilmington, N. C., to meet "existing necessities for medical education" in that section.

KING WILLIAM III. of England was distinguished in his demeanor as dry, forbidding and austere" to no common degree. He never appeared quite at his ease except on the day of battle. For this coldness and reserve there might be, perhaps, in some degree a physical cause assigned, since, when his body was dissected in the presence of ten physicians and four surgeons (the most eminent of their time), it was reported by them that "it is very rare to find a body with so little blood in it as was seen in this."

THE BAKER BROWN FUND which is being contributed in England in behalf of the distinguished surgeon, on account of his pecuniary distress and incurable paralysis, now amounts to nearly £400.

BOOKS BOUND IN HUMAN SKIN.—A copy of the "Constitution of the French Republic of 1794," bound in human skin, is about to be sold in Paris. The binding, however, is said not to be unique. The public library in Bury St. Edmunds contains an octavo volume, consisting of a full report of the trial and execution of Corder (who murdered a young woman near London about forty years ago), together with an account of his life. This volume is bound in the murderer's skin, which was tanned for the purpose by a surgeon. The skeleton was prepared for the Suffolk General Hospital, and is still to be seen there. The human leather is darker and more mottled than vellum, of a rather coarse texture, with holes in it like those in a pig's skin, but smaller and more sparse. English books with this kind of binding are much less rare than is supposed. In the Bristol Law Library are several books bound in human skin, specially tanned for the purpose, and some curious details might be furnished of several local culprits executed in that city, who were flayed after execution to furnish the leather for binding together some contemporary legal lore.

DEATH FROM CHLOROFORM IN VIENNA.—The death of a patient while on the operating-table, under the influence of chloroform, occurred on the 27th of last month in the practice of the eminent Vienna surgeon Billroth. Disarticulation at the hip-joint was being performed, on account of osteomyelitis. The femoral artery had been tied, and Billroth was about to apply the galvano-caustic wire in order to divide the soft parts after the enucleation of the head of the bone, when the patient's breathing became stertorous, and he died. Tracheotomy was immediately performed; but it and all other attempts to restore life were fruitless.—*Brit. Med. Jour.*

THE Title-page and Index to the last volume of the JOURNAL, which was intended to be sent to subscribers in this week's issue, is unavoidably delayed another week.

CORRECTION.—In the case reported by Dr. Webber before the Boston Society of Medical Sciences, as presented in the last number of the JOURNAL (page 417), a statement that the case occurred in the service of Dr. Sinclair at the City Hospital was inadvertently omitted.

PAMPHLETS RECEIVED.—Fifty-first Annual Report of the Board of Direction of the Mercantile Library Association of the City of New York. Pp. 45.—A Plea for the Antiphlogistic Treatment of Disease. By Edward Montgomery, M.D., St. Louis, Mo. Pp. 20.

MARRIED,—In Paris, France, 6th ult., George Brune Shattuck, M.D., of Boston, to Amelia Dellavalle, daughter of Frederick Tchütte, Esq., of Paris.

Deaths in sixteen Cities and Towns of Massachusetts, for the week ending June 29, 1872.

Cities and Towns.	*No. of Deaths.*
Boston	126
Charlestown	7
Worcester	27
Lowell	14
Milford	3
Chelsea	3
Salem	16
Lawrence	7
Springfield	7
Lynn	11
Fitchburg	4
Taunton	5
Newburyport	5
Somerville	6
Haverhill	5
Holyoke	17
	263

Prevalent Diseases.

Consumption	35
Cholera Infantum	25
Scarlet fever	14

Boston reports six deaths from smallpox. Holyoke reports nine deaths from measles.

GEORGE DERBY, M.D.,
Secretary of State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, June 29th, 126. Males, 77; females, 49. Accident, 5—apoplexy, 1—anæmia, 1—asphyxia, 1—inflammation of the bowels, 2—disease of the bladder, 2—bronchitis, 4—inflammation of the brain, 2—congestion of the brain, 1—disease of the brain, 7—cerebro-spinal meningitis, 1—cyanosis, 2—cancer, 2—cholera infantum, 9—cholera morbus, 1—consumption, 16—convulsions, 5—croup, 2—diarrhœa, 4—dysentery, 3—diabetes, 1—erysipelas, 1—scarlet fever, 6—typhoid fever, 3—gangrene, 1—gastritis, 2—disease of heart, 8—hernia, 1—infantile, 2—intemperance, 1—disease of the kidneys, 1—disease of the liver, 3—congestion of the lungs, 1—inflammation of the lungs, 2—marasmus, 2—neglect, 1—ovariotomy, 1—paralysis, 1—premature birth, 2—puerperal disease, 1—syphilis, 2—smallpox, 6—spina bifida, 1—suicide, 2—whooping cough, 1—unknown, 3.

Under 5 years of age, 56—between 5 and 20 years, 11—between 20 and 40 years, 26—between 40 and 60 years, 22—above 60 years, 11. Born in the United States, 88—Ireland, 23—other places, 15.

THE

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Original Communications.

HEALTH-RESORTS AT THE SOUTH.

Read before the Massachusetts Medical Society, at its Annual Meeting, June 5th, 1872,

By Wm. W. Morland, M.D. Harv.

The constantly increasing travel of invalids to southern latitudes, every year more and more arrests our attention, and it need hardly be said, in this presence, that this crusade after health is too frequently begun at the wrong time, imperfectly carried out when rightly begun, and, in very many instances, brought to a premature termination. Whether an invalid—and especially a pulmonary invalid—should go from home at all, should be left implicitly to his physician to determine, who, in addition to careful reflections upon the nature and stage of the malady, will do wisely to inform himself as to the "surroundings" awaiting his patient in the proposed place of his temporary sojourn, and also to assure himself of his ability to command comforts and attention when among strangers. It is worse than useless for those who have not means sufficient to be well cared for, to leave their homes—the invalid cannot "rough it."[*]

Not every place where people get well from time to time, deserves the name of health-resort. No more—indeed, very often—than the earth-bath about which we were told, not long since, wherein, somewhere "out West," six victims of scurvy were buried, "up to their necks," and left over night. The account goes on to state that the trial as to the curative properties of the earth, in this instance, was unsatisfactory—as a pack of "*coyotes*" came along, in the night, and "*ate the six heads off*"! Unfortunately, there are marauders more stealthy and seductive than these wild prairie wolves. The well-known fact of the wide prevalence of ailments coming under the designation "nervous" or "general" debility, noticeable so frequently in young ladies, and distinctly traceable to the immense and exhausting labor of following the gay goddess Fashion, during "the season," at our various watering places and elsewhere—especially just after a hard winter-campaign in the city—furnishes only too ample proof of the assertion. So, too, the fascination of money-making, and the excitements of business-life which are constantly luring or driving men, in our day, into that over-work and utter neglect of recreation which finally breaks down the strongest, should elicit from our profession the most earnest warnings before it is too late—before what a patient lately described as "fatigue in the head," becomes softening of the brain, insanity, or hopeless imbecility.

But what we have mainly in view has more reference to the resorts for pulmonary and throat complaints, than to the gout- and rheumatism-curing waters of Sharon, the famed Springs of Saratoga, or the "Geysers" of California—the latest wonder of that wonderful land—whose "steam," arising from the sieve-like crust of the earth, envelopes the astonished traveller as with a mantle of mist, and whose healing qualities are believed to be marvellous.

Florida attracts crowds of invalids and tourists to its delicious climate and tropical scenery. Hitherto, the chief drawback to the enjoyment of these has been the insufficient and very inferior accommodations, and the wretched food—poor in quality and infamously cooked. A great improvement, indeed, has taken place within the past two or three years, and will doubtless be progressive. Returned travellers, however, this spring, complain not a little of discomforts in the way of crowded conveyances and hotels; and it would appear that suitable food and a knowledge of its proper preparation—especially for valetudinarians—are to be found in only two or three localities. Yet the influx of travellers, and especially the prolonged residence of those escaping from Northern winters and even more dangerous springs, must lead to the increase of good accommodations and of the means and appliances which, while only luxuries to the healthy traveller, are necessities to delicate, susceptible invalids, who cannot live upon climate alone. However balmy the air that steals across the St. John's River, or, more bracing and fresh, tosses the feathery palm-leaves at St. Augustine, the stomach must be catered for, as well as the lungs, and leathery beef-steaks, swimming in the grease in which they have been fried—to *fry* steaks and chops ought to be made a capital offence by statute—and yet, as is well known, the felonious act is committed in New England as well as farther south—heavy, sour, or saleratus-speckled bread, rancid butter, *et id omne genus*, are not wholesome adjuncts to the superlative qualities of the climate. A patient who has frequently been in Florida, said, recently, that while the *air* was absolutely medicine to the throat and lungs, and nowhere else could the breath be drawn with such a sensation of comfort and freedom as along the St. John's—and especially at or near Jacksonville—digestion was often seriously disturbed by certain of the causes mentioned. Your strong and healthy tourist, who trudges about Florida, shooting alligators, fishing, rowing, &c., and able to brave heat, fatigue, dirt, doughnuts, pork, and other queer and trying things, cannot appreciate the invalid's annoyances and dangers.

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[*] The *London Lancet* (May 25th, 1872) has some very apt comments upon what it terms the "expatriation of invalids," and which both patients and medical men might peruse with advantage. The writer especially refers to "the careless haste with which this dreadful sentence of banishment is too often pronounced;" and also calls attention to the *costliness* of travelling for health, as a matter to be soberly and carefully considered. "It is scarcely too much to say, that for want of this kind of care and forethought on the part of the physician, hundreds of patients die the miserable death of the exile, who feels that his banishment has hurried him to the grave, and broken the hearts and half-ruined the fortunes of the dear friends among whom he would have been only too glad to die in peace."—*(Loc. cit.)*

The St. James Hotel, at Jacksonville, is the best in the place, and its table was well provided last year. In the height of the season, invalids will lack suitable attendance unless they take a servant with them. From Magnolia, we have the most favorable reports, describing it as furnishing "a genuine Northern home in that sunny, Southern land." This season, our city and its vicinity have been largely represented at Magnolia, and so much satisfaction have the locality and the provision for the accommodation of guests given, that many propose building cottages there for winter homes.* The Magnolia establishment commands the accomplished services of Dr. Rogers, formerly at Jacksonville; he is a New England gentleman, long and favorably known in this community.

Hotel accommodation is now pronounced excellent at Palatka. At St. Augustine, the finely-situated hotel at the pier-head was not satisfactory as to its *cuisine* during a short stay we made there in 1870; and we notice similar judgment is passed upon it and the other hotel this year. As they have been liberally patronized, even greatly "crowded," the past season, more successful exertion in the catering department might, not unreasonably, have been looked for. There are two or three very good boarding-houses in the town, where, to our personal knowledge, both good material and excellent cooking are to be had.

The fare on the river boats is not, generally, good. On many of them it is atrocious, and there is great necessity for improvement, before it can be pronounced even safe for invalids to be much upon them. Neither can we compliment very highly the tables of the fine sea-going steamers from New York to the Southern ports. It is true that large numbers of passengers, on account of sea-sickness, in addition to their other troubles, are somewhat indifferent to food and cookery—but many others are not, and a reform in these respects is certainly needed.

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* Plans for several of these have already been drawn by Edward C. Cabot, Esq., of this city, who has been passing the winter in Florida, and four are already erected, at the instance and with the assistance of Mr. J. M. Forbes, by Dr. Rogers, in addition to those connected with the hotel. "The cottages"—writes Mr. Cabot, in reply to a note of inquiry about Magnolia—"contain 12 rooms, and 10 of these have open fire-places. They are provided with earth-closets and water."

We are glad also to add Mr. Cabot's testimony to that of many others this season, in favor of the excellent management at Magnolia. After recounting his unfortunate experiences and most uncomfortable fare everywhere else in Florida—poor food and cooking and lack of proper attendance at hotels—the latter a crying evil which we have ourselves experienced—he thus speaks of Magnolia, where he stopped, as he then thought, only for "a day," on his way home, "disgusted" and ill. "I staid six weeks, and enjoyed every minute. The accommodations were excellent. Everything, including the grounds, clean and neat; the fare excellent and well cooked. The proprietor and landlord were very attentive and kind, and I soon was perfectly well and began to grow fat. The place is situated on an extensive promontory, formed by two creeks. The land is unusually high for the St. Johns, and the soil is sandy. The place is covered with live oak and magnolia; the river is here about four miles wide. In short, for any one wanting quiet enjoyment of the best climate in the United States, Magnolia is the place."

Green Cove Springs, three-quarters of a mile from Magnolia, boast hot baths—sulphur-water of 80°—said to be "very pleasant," and recommended for rheumatism. From a patient recently there, we learn that the proprietor of the hotel then thought the best, was very kind, but the food and cooking not good. Mr. Cabot mentions three hotels now in operation, one of which is "well kept and comfortable."

A few words may here appropriately be said in reference to modes of transit from the North to the South. So far as sick and feeble persons are concerned, there can be no doubt that the steamship voyage from New York to Savannah or Charleston, is by far the preferable mode. From Savannah, a day's or a night's ride, by rail, brings one to Jacksonville, whence conveyance, by boat, to various points is easy. The entire journey by rail is painful, dangerous and exhausting to invalids. To say nothing of its length, the often unavoidable exposure, by change of cars at unconscionable hours—the poor accommodations, if stops are made, &c., more than counterbalance the annoyances and discomforts of the three days' sea-voyage—admitting those to be enough for average mortals.

What class of invalids should go to Florida? Consumptives, undoubtedly—with due discrimination of cases—not those whose days are numbered. Then, many with bronchial affections. More especially are the cases of comparatively dry, irritative cough, and uncomfortable throats, benefitted by the soft air along the St. John's River. Many go to St. Augustine—but as our experience compels us to say, with far less advantage—sometimes with positive harm. The immediate proximity of the sea is the difficulty. However delightful it may be to feel the crisp, fresh breeze coming in from the sparkling, sunlit ocean, over which one gazes with such delight, from the shores down to whose margin the quaint old town has crept, and lazily dreams away its tropical existence—there is danger. We have observed marked aggravation of symptoms in bronchitic patients who had come from Jacksonville, or farther, to St. Augustine. A few days, only, sufficed to show the necessity for immediate return—a favorable result justifying the action. There are many other affections, however, which the more bracing air of St. Augustine would suit far better than the mild, relaxing climate of the interior of Florida. Persons suffering from that nervous or general debility previously alluded to—loss of tone and vigor—or from the so-called "breaking down" from overwork; and doubtless from a variety of other ailments—would do well by sojourning for a time in this oldest town of the States—sauntering among orange-groves, or through gardens fragrant with full-blown roses in March—floating out upon the bright waters, to the signal disturbance of the shoals of pelicans and other sea-fowl which so picturesquely fill the coves and inlets. The climatic change and contrast obtainable in so few days run from the North, is very striking, and seems like magic. Leaving snow-drifts and bitter, howling winds in Boston, the last of February or first of March, Jacksonville is easily reached in about four days from New York—and you are, as it were, in our mid-summer, breathing a soft, delicious air and surrounded by a wealth of bloom.

Florida is liable to sudden and marked changes of temperature in winter, and sometimes during March. Invalids should be forewarned of this; and the fact constitutes a strong objection to visiting the country too early in the cold season. Some writers have lauded the western or Gulf side of the State as favorable for the establishment of *sanitaria*. Disturnell, in his work on the "Influence of Climate in North and South America"—quoting apparently from Dr. Perrine—cites Key West, and Miami, on Key Biscayne Bay, as "most desirable points for establishing such facilities." Key West is so far to the south that the "Northers,"* so powerfully felt high up on the Gulf Coast, are doubtless much modified before reaching it—although we have known them sufficiently decided in the city of Havana. When we reach a point so far to the north on the Gulf Coast as Pensacola, therefore, we are not surprised at the following opinion adverse to the establishment of *sanitaria* there, or in the immediate neighborhood, from J. Winthrop Taylor, M.D., U. S. N., for many years stationed at Pensacola. "There," he writes, "during the winters, cold northerly winds prevail, accompanied with heavy rains. These, in my opinion, are insuperable objections against establishing *sanitaria* in that locality."

Somewhat unexpectedly, we find writers pronouncing the winters "more severe upon the Gulf Coast than upon the Atlantic." (Disturnell, *op. cit.*) Observers, however, have thought the climate more *equable* on the Gulf side; and, if this be so, it would certainly be a great advantage. At present, so far as we are aware, there are no adequate accommodations for invalids there.

Dr. George Hayward, of this city, during a short visit to the South, some years ago, was much struck by the advantages offered as a winter residence for invalids, so far as climate was concerned, by a place in the southeastern part of Alabama. At our request, he has furnished the following short account of its features:—

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* "A fierce, chilly wind, peculiar to the Gulf of Mexico." (Disturnell *loc. cit.*) It visits Texas and is well known even farther to the south, prevailing at about weekly intervals, from November to March.

"It is about 20 miles from Pensacola, Florida, situated on the Perdido River, which divides Florida from Alabama. The soil is dry and marly, well suited for raising vegetables, but not strong enough to grow cotton. Pine trees abounded, and the winds from the Gulf of Mexico, distant a mile or two, came through them loaded with a balsamic fragrance that made it a pleasure to breathe. The drives in the neighborhood were pleasant, wild game abundant, and, from what I could learn from those residing there, the changes in temperature were much less severe than on the Atlantic coast, the weather being, for the most part, like our finest October weather, excepting that once during the winter, ice formed as thick as window-glass, which was considered very remarkable.

"The climate of this region on the Perdido river was regarded, during the Spanish occupation of Florida, as very favorable to diseases of the lungs; and, as it is very accessible, by water, from Mobile, it may yet be selected as the site of one of the *sanitaria* which will doubtless some time be established in this portion of the South."

On account of the extreme and sudden changes of temperature thus occurring, many persons now remain, by choice, at the North through most of February, and with more benefit, also, than they ever experienced in Florida, up to that time—but, when the season of melting snow and raw East winds sets in, they escape to the South, without delay.*

Savannah, Ga., is a very pretty city, and charming to the voyager from the chilly North, as he comes up from his vessel into its balmy atmosphere, and looks out from the windows of his hotel upon the "Square," so pleasantly dressed in the fresh green of Spring; or drives through its shaded and unpaved streets, along which, with their characteristic "lope," the fine Southern horses so noiselessly bear their skilful riders; or wanders through the cathedral-like aisles of Bonaventure Cemetery, where the long gray mosses droop from the trees, and sway, rustling and sighing in the wind, like banners hung above the dead.

A pulmonary invalid is not likely to linger long in Savannah; at least such is the opinion we have formed from observation and inquiry. There is a great deal of humidity in the air, the situation of the town is mainly flat, and its surroundings, with some exceptions, uninteresting. Yet there are, doubtless, certain cases which would do well there—and many Southern localities can only be fairly tested by a personal trial of their climate.

Aiken, S. C., long known as possessing a favorable climate for many pulmonary ailments, is most easily reached by rail from Charleston. *Easily* is here a relative term, however—for, as on most of the Southern railways, the rate of progression is snail-like, and the extremely frequent pauses *seem* unnecessary. The roads are, generally speaking, in very good condition—the traces of war-disturbance having been mostly done away—but a little more energy and foresight in their management are certainly demanded. When the transportation of invalids is in question, the matter sometimes becomes very serious. The distance from Charleston to Aiken is about 120 miles; our last trip over the road was by night-train, starting at 7 o'clock. The run—or rather the creep—was made in about twelve hours, an average of ten miles to the hour! The usual average on Southern railways is, perhaps, some five miles better—on some, however, not more than twelve or thirteen miles an hour. How we did stop, and sit still, on that night-ride! Now, to take in water—after having just left a station, where, seemingly, it might as well have been supplied; then, for the conductor to leave some parcels at a "wayside inn," or something resembling one—and to have a little chat, sociably, with the occupants; then, apparently, with no purpose whatever, unless to use up time—out in the moonlit pine woods, with occasionally a "light-wood" fire burning near the track, and a darkey or two sidling about! Very picturesque, doubtless, but how about the weary, worn-out, sick man, or woman, watching the hours, and longing for the journey's end?

The village of Aiken is hardly prepossessing, and straggles about a good deal over its flat, sandy plain, with here and there—especially in its outskirts—some neat homesteads, showing careful hands beginning to make improvements. Most of what may be termed *spruce* about it, however, must be referred to the neighboring woods. Hotel-accommodation is good, and private board and lodging, of fair quality, may be obtained. There are two hotels—the Aiken Hotel in the centre of the town, and the Highland Park Hotel. The latter is new, and is finely situated, at one end of the main street, commanding a wide and pleasing view over a densely wooded valley, beyond which some well-shaped hills break the monotony of the desolate "pine-barrens."

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* We cannot take leave of Florida, and especially of Jacksonville, without referring those in need of a physician to Dr. Mitchell, of the latter place. He is a man of large experience, kind heart and honorable motives; and his incessant occupation shows how well his services are appreciated.

In this connection, it gives us pleasure to refer to the establishment of Dr. W. H. Geddings—"The Pines." Dr. Geddings is a son of the late Dr. Geddings, of Charleston, S. C., and is well known at the North as a thoroughly educated and most competent practitioner. He refers, in his printed circular, to some of the best physicians of Boston, New York, Philadelphia, Baltimore and Richmond.

In all frequented *sanitaria*, it is a trying sight—even for the healthy, passing traveller—to witness such a collection of sufferers in various stages of disease—in fact, it is one of the great drawbacks of health-resorts at the South. Yet it is wonderful how soon one becomes accustomed to this inevitable presentation of the ills to which "flesh is heir"—so that grim jokes, even, fly about at the expense of the invalid corps, such as the *quasi* word of command, "time for the consumptives to take exercise," or, "hour for the march of the skeleton brigade"! and these somewhat forced gaieties not infrequently come from members of the "forlorn hope."

In this genuine pine-barren district the atmosphere is very dry and pure, and, like that of nearly all the surrounding country, admirably suited to many cases of serious lung-disease. A sufficiently careful discrimination of the kinds of cases is, however, hardly ever made; and it is to be hoped that some one of the excellent resident physicians of the region will set forth from the teachings of their large experience some hints for guidance in this direction. And we cannot too strongly insist upon the wisdom and importance, for the benefit and comfort of invalids about going South, of a prior correspondence between their medical advisers at home and those about to have the care of them, as to the advisability of their going, and the fitness, or otherwise, of any particular climate or locality in their cases. Too often, persons with pulmonary trouble rush southward without any proper advice, in a purposeless way, nearly certain to end in disappointment and aggravation of their illness.

Our own impression with regard to the climate of Aiken and its vicinity is that many consumptive cases, where cough is accompanied by profuse expectoration, would be benefitted by the dry, somewhat bracing air. The contrary would be likely to prove true of cases of irritative bronchitis, with dry cough, or with but little cough, and only slight secretion from the bronchial mucous membrane. Rather injurious effects of the climate in these cases, came under our observation—the throat becoming drier and more irritable, and the transpiration from the skin nearly suppressed; whereas, in Florida, with but little, if any, difference of temperature, perspiration was very free—and the softer, more humid atmosphere soothed the irritated lining of the air-passages.

Since the above was written, a valuable article by Manning Simons, M.D., of Charleston, S. C., and published in the *American Journal of the Medical Sciences* for January, 1872, has attracted our attention. It is entitled "Climate in its Relations to the Production, Progress, Amelioration and Cure of Consumption," and will repay the careful perusal of all interested in so important a topic. It is with much satisfaction we find our impressions of the various southern climates confirmed by so accomplished an observer as Dr. Simons, whose evidence derives great additional force from the fact of his familiarity with their merits and demerits by residence. Speaking of advanced cases of consumption, he remarks as follows: "As to the application of climate to the already developed disease advanced to its later stages, when cavities have formed, or extensive consolidation exists, we may throw our information into the general statement that a locality possessing a warm, dry, moderately stimulating atmosphere, free from excessive variations, is, to the largest number of cases of this character, most suitable." And, subsequently, in this connection, he says: "In Aiken, S. C., is found a locality possessed of a climate characterized by dryness, moderate range of temperature, comparatively free from extremes of variation, a mean temperature of 61–69°, a tonic property of atmosphere, and a position 120 miles from the sea, with an elevation of 600 feet above the sea-level —properties rendering it eminently suitable to this class of cases." A degree of parallelism between the climate of Aiken and the so highly lauded climates of the South of France is alluded to by Dr. Simons in the article referred to; and "the great advantage the invalid derives from being able to spend so much time, day after day, in the open air, in consequence of the equable temperature, clear sunshine, and dryness of the air.

Another point of great importance, and to which we have already referred particularly, when writing of the climate of St. Augustine, is the effect of a *sea-coast* air on those suffering from pulmonary disease. Here, again, we are glad to find that our conclusions, independently made, are most decidedly ratified by the observations and experience of Dr. Simons—who also cites many high authorities to the same effect. We quote, again, from the paper mentioned. "That the pure air of the open sea acts in a very favorable manner we have excellent authority, but it is not so clear that the air on sea-shores is, as a rule, sanitary in its effect." We think it is very "clear" that, in most instances, in the class of affections alluded to, it is very far from "sanitary," often, indeed, injurious, or even perilous. Very strong opinions on this vital matter are enunciated by Dr. Simons—thus: "Experience has amply proved that a mixture of land and sea air, such as exists on all our maritime situations, is unfavorable to delicate lungs, and especially where there is phthisis, or even a disposition to it." He cites several writers, and refers also to certain apparently opposing facts to the above conclusions—the remark, for instance, of Walshe, that while "islands and coast-districts are said to be favorable to the development of phthisis, yet observe that the natives of the Azores, Madeira, Iceland, the Faroe Islands, Marstrand and on the coast of Sweden, spots climatically various as their sites, suffer very slightly from the disease;" and, adds Dr. S., "according to Dr. J. E. Morgan, the disease is rare on the northwest coast of Scotland." *Per contra*, "Fuller states that along the shores of the Mediterranean, in Malta and Madeira, to which localities consumptive individuals are commonly consigned, the ratio of mortality among the natives, from phthisis, equals, and even exceeds, that which obtains in England." [Simons, *loc. cit.**

Notwithstanding, therefore, a certain amount of conflicting testimony, we believe the preponderance of evidence to be in favor of inland, high-lying districts, over sea-coast localities, even in warm climates, not only for serious pulmonary difficulties, but also for what are deemed comparatively slighter ailments—an opinion decidedly expressed, in nearly the same terms, by the writer to whom we have so freely referred. The opinion is, of course, not new; and it is especially fitting, in such connection, to mention the late researches of a distinguished Fellow of this Society,* affording convincing proof of the preference of phthisis for low-lying lands and wet soil. The main point, however, is the choice to be made, by invalids at the South, between seaside and inland, with the same, or nearly the same, temperature.

Our own observations of the climate and peculiarities of the region around Aiken were mostly made at and in the neighborhood of "Montmorenci Park"—formerly known as Montmorenci Springs—about four miles from Aiken, and a most admirable site for a *sanitarium*.† From Montmorenci House, one looks down upon a valley suited to almost any crop, devoted, in part, along its farther slopes, to vineyards, and begirt with the almost ubiquitous pine woods. The grape cultivated is mostly the "Scuppernong," from which a very good wine and passable brandy are made. The soil is of reddish clay and sand. In the centre of the valley, corn and sweet potatoes are grown. As we gazed over this fair expanse in March—our so rude and boisterous month at home—the thermometer registered 78° to 80° *(Fahrenheit)* at about 9 o'clock, A.M., in the shaded piazza. This was rather higher than the ordinary range for the time of year and hour of the day—and higher than we subsequently noted it, but not by many degrees. Flowering shrubs were in bloom, and everything imaged the lovely June days of New England. In the pine woods, the beautiful, wild *fleur-de-lis* was pushing its bright petals, here and there, through the thickly-strewn pine leaves, and the jessamine swung its light bells, in profusion, all around.

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* Dr. Simons likewise refers to the mentioning, by Drs. Coffin and Geddings, "in their brochure on the climate of Aiken, S. C.," "that the same fact obtains also on the coast of Africa, and that whilst on the coast of Egypt the disease is quite common, it diminishes as we advance inland, disappearing almost entirely in Upper Egypt."—*(Loc. cit.)*

* Henry I. Bowditch, M.D.

† The property belongs to Capt. Ruxton, a genial, intelligent English gentleman, who is untiring in his efforts to improve the land and incite the neighboring inhabitants to advances in agriculture. The large and convenient house upon the premises stands in a very commanding situation, upon a rocky eminence, overlooking a beautiful valley, and, at a little distance from its cultivated area, is a back-ground of thickly growing pines. An unfailing spring of very pure water rises, with considerable force, from almost the highest portion of the hill upon which the buildings stand—and hence, we conclude, the former name of the place. At our visit, comfort reigned within and around the pleasant, hospitable mansion, and nowhere at the South have we seen so much pains taken to make visitors contented and happy. It is a pity that so fine a situation could not be permanently improved for sanitary purposes, but we learn that the owner has decided no longer to lease it with such intent. Dr. P. A. Jewett, who, with his excellent wife, had charge of the establishment, a year ago, intended, on leaving it, to take quarters in some desirable neighboring locality. Dr. J. is well acquainted with the peculiarities of the climate, is competent to advise, well qualified as a surgeon, served with credit in the army during the late war, is generous, kind and studious to please and benefit those who come under his care. To Mrs. Jewett's personal care and exertions, the guests owed the real home-comforts—culinary and other—so important to invalids.

At Montmorenci, everything was done to tempt invalids into the open air, and to do away, or counteract, by pleasant occupation and amusement, those depressing influences which so constantly obtrude themselves where invalids congregate. We saw many who, in spite of their ailments, took a lively interest in the tournaments, barbecues, and sports devised for the negroes. Much better this than sitting moping within doors or lazily rocking upon a piazza. To see the genuine *abandon* of a double-shuffle or break-down, by two ebony individuals, or a butting-match between two juvenile "nigs"—like two goats—one of the scamps being nearly nude, and of whom it was remarked, by the owner of the place, with a ludicrous solemnity of expression, that "no clothing could be kept on him"—served to arouse the flagging spirits of many who otherwise would doubtless have been drooping and brooding over their ailments. Then there were leaping-matches, by athletic, handsome fellows, and a torch-light procession afterwards, winding through the forest like a luminous serpent, while from its ranks arose, by turns, plantation songs and the more plaintive religious melodies so peculiar to the African race. We can conceive of no more desirable additions to superlative climate and well-cooked food than such laughter-provoking and pleasing performances. The negro is proverbially musical, and one of the waiters at Montmorenci, John Page by name, over six feet in height, and admirable in his vocation, was the leader of a sable choir which often serenaded us with their droll or pathetic melodies. John also added poetry to his other accomplishments—as witness the following short effusion, intended to assert the superiority of Montmorenci over Aiken, as a sanitary locality, and in general:—

"Aiken is a growing place,
    Few days—few days;
But Montmorenci takes the praise,
    And I'm going away!

"Oh the Shanghai chicken he grew so tall—
    Few days—few days;
He grew so tall you couldn't hear him crow,—
    Few days ago!

"I've got a house out younder—
    Few days—few days;
I've got a house out younder—
    And I'm going home!"

More attention at *Sanitaria* to the development of the amusing and entertaining elements which can so advantageously be brought out, is highly desirable, and would in great measure tend to prevent that natural disposition, among those similarly affected, "to compare notes as to the symptoms and progress of their disease, thereby producing depression of spirits which cannot be dispelled even by the hopefulness which is a peculiar characteristic of consumptives." [Simons.] A private family, or an establishment similar to the one we have described at Montmorenci, certainly has great advantages over the crowded hotel; but of course there are not, and never will be, enough such to supersede the necessity of the latter.

After poetry, a few figures, lest we grow too romantic. Dr. Jewett has kindly furnished the following information in regard to the temperature and climate of Aiken and its neighborhood. The observations were made by him at Montmorenci.

From the 9th to the 31st of *December*, 1870, the average temperature was 45° of Fahrenheit's scale. Difference between dry and wet bulb, 4°. Bright sunshine during 13 entire days. Cloudy and bright, alternately, 3 days. Cloudy, all day, 7 days. Rainy 4 days. Snow fell on one day only.

January, 1871.—Average temperature, 55°. Difference between dry and wet bulb, 6°. Bright sunshine, 14 days. Sunshine and clouds, 10 days. Cloudy all day, 7 days. Rain fell on 4 days. No snow.

February, 1871.—Average temperature, $57\frac{3}{4}$. Difference between dry and wet bulb, 5°. Bright sunshine, 12 days. Sunshine and clouds, 6 days. Cloudy all day, 10 days. Rain on 7 days. No snow.

March, 1871.—Average temperature, 65°. Difference between dry and wet bulb, $7\frac{1}{2}°$. Bright sunshine, 17 days. Sunshine and clouds, 5 days. Cloudy all day, 9 days. Rain on 6 days.

"For four months"—writes the Doctor, subsequently—"there were 22 days on which it rained, not all day, but in showers; and 113 days on which no rain fell." During *April*, 1871, the range of the mercury was noted thrice daily. At 8 o'clock, A.M., the average for the month was $67\frac{1}{3}°$; at 1 o'clock, P.M., a fraction over 73°; at 6 o'clock, P.M., $72\frac{2}{3}°$. There were occasional showers through the month, but no entirely rainy day. Dr. Jewett adds—"It has been a *dry* month for April. I cannot give the difference between dry and wet bulb. We have had dew occasionally during the last ten days of the month."

The extreme evenness of the range of temperature will be remarked, and also the continued pleasant weather and uniform dryness of the air. In a recent letter, Dr. Jewett says—"The time for invalids to be benefitted is from the middle of January to June—and, in some seasons, July. From November to the middle of January, the weather is very variable and sometimes very cold. The cases most benefitted are those of pulmonary hæmorrhage—not too far advanced—and bronchial cases of the humid type. Cases of tuberculous disease are no better off here than in any other warm climate. Those who have suffered from protracted fever and ague are always benefitted by a residence here." So far as regards the pulmonary cases, we had reached the same conclusion—as noted in another part of this paper.

In reviewing this somewhat desultory sketch, it may safely be said, that while a perfect and unexceptionable health-resort can hardly be found within the region which has most occupied our attention, certain portions of Florida, on the whole, give us the nearest approach to such a locality. Of late, among the sanitary island-resorts, Nassau, New Providence—Latitude, 25°5′ N., Longitude, 77°20′—has been a favorite. Personally, we have no experience of its merits, but, from frequent conversations with those who have, we conclude that it has a warm, delightful, but still rather a humid climate, which, therefore—as might be expected—while it answers admirably the requirements of certain cases, has been decidedly adverse, or at least neutral, in its effects upon others. Quite lately, we were told of an instance where troublesome cough was unrelieved, or even grew worse at Nassau, but immediate improvement occurred on the patient's arrival in Cuba. As yet, moreover, the commissary and culinary departments are not up to the standard desirable for visitors and essential for invalids. But this defect will doubtless be gradually remedied.

Dr. George C. Shattuck, of this city, who has been twice at Nassau, and is thoroughly acquainted with its climate and advantages for invalids, has just given us the following valuable information. The climate he considers to be delightful, and peculiarly suited to phthisical patients from November until the middle of February—just the period, as we have already mentioned, when variableness of temperature in Florida renders it undesirable and even unsafe for invalids to go there. With this view, therefore, the proper course for patients would be to go first to Nassau, remaining during the period indicated; thence by steamer, running fortnightly, to Havana, where a day or two will suffice; thence to Cedar Keys, Florida, and thence to the best localities. Dr. Shattuck also called our attention to the important fact that the harbor at Nassau is constantly *flushed*—no stagnation occurring in bights or pools, &c. This arises from its peculiar conformation, which allows the tide thoroughly to wash, in a straight course, through its whole extent, backwards and forwards—certainly a highly valuable hygienic provision. This is not the case in many other harbors—for instance, the very beautiful one of Havana.

The steamers running from Havana to Cedar Keys—so a friend informs us—are small and not comfortable, with one exception; and the existence of a "bar" at Cedar Keys is sometimes a cause of detention; yet, *faute de mieux*, these deficiencies may be endured, in the hope of better things, by and by. As the same friend suggests, a line of large, safe, and thoroughly seagoing steamers from Havana to Savannah would obviate every difficulty, and doubtless would be well patronized. Previous to the late war, there was such a line.

A word of caution, in conclusion, to invalid sojourners at the South. Do not hurry back because it begins to grow very warm—*hot*, perhaps—by the middle or last of April. Change your quarters slowly. If in May the Floridian temperature becomes excessive, inducing languor and prostration, a move, of course, had better be made. The gravest error you can commit, however, is *suddenly* to exchange the soft, tropical air for the sharp, moist, terribly penetrating, northerly and easterly winds of New England. And remember, especially, that Boston has been not inappropriately styled "The Paradise of east winds"! May is not the month to return in, if your home is at or near Trimountain. Nor is New York city much if any better. Only last season we were cognizant of grievous harm done to one poor invalid, a young man who thus imprudently exchanged climates, by steamer, from Savannah, arriving in New York harbor during the first week in May and in the midst of a north-easterly rain-storm, varied by snow-squalls. All the benefit derived by him at the South was at once swept away. These rash performances are constant; avoid them, therefore, and come *gradually* north-wards; you will never regret the *festina lente* plan of movement. Although, in a former part of this paper, we strongly advocated the sea-voyage over the land-trip, yet a *returning* invalid runs too much risk to go at once, early in the season, so far as New York. To Baltimore from Charleston might answer. Otherwise the rail is the only alternative, and a divided journey. Stop, perhaps, at Richmond, Va., then at Washington or Baltimore, and linger awhile in the Quaker City. If you reach New York, and especially Boston, by the middle of June, you will find it, generally, early enough. In some seasons, the first of June will *do*—not usually. Of course, if you remain *late* at the South, it will be safe to run directly North by steamer. Not a bad rule, otherwise, for your "flitting," is that which keeps you in view of the earliest fruit of summer—*follow the strawberries.*

231 *Beacon Street, June,* 1872.

A CASE OF PERITONITIS WITH SINGULAR COMPLICATIONS.

By L. H. Luce, M.D., Falmouth, Mass.

On the evening of September 21st, 1871, I was summoned hastily to attend a patient who was represented to be suffering severe pain. On arriving, I found a young man, aged 25, of a nervous temperament, lying in bed with limbs strongly flexed, and suffering acute pain over the abdomen. It appeared that, while hard at work, he had been suddenly seized with pain and chills of so severe a nature as to oblige him to discontinue his work and to go to bed. His pulse was 120, small and quick. The recti abdominis muscles of both sides were tense and rigid; there were frequent but ineffectual attempts at vomiting, great tenderness on pressure, especially over the lower portion of abdomen; countenance anxious and expressive of great suffering; tongue coated and red.

From the suddenness of the attack, and from the fact that the patient had been engaged in work requiring great exertion, I thought it was a case of strangulated hernia that I had to deal with. On asking the patient if he was ruptured, he answered in the affirmative. An examination of the inguinal and femoral rings, also of umbilicus and linea alba, did not reveal any symptoms of strangulation. While examining the inguinal ring of the left side, I noticed an absence of the testicle. Carrying the fore-finger up into the tendinous aperture, the testicle could be readily detected both from its form and from its extreme sensitiveness. Questioning the patient in regard to this anomaly, I elicited from him the statement that, five years previously, while engaged in work, his testicle had disappeared after a violent straining effort. This condition of affairs only increased my fears that it was a case of concealed strangulated hernia; the pain and tenderness being much greater in this region, also tended to make the diagnosis more obscure. Morphia was given, fomentations of hops as warm as could be borne were applied across the abdomen, and the patient made comparatively comfortable.

Sept. 22d.—Had passed several hours of ease, with which exception patient has been in pain, though less intense: pain is compared to gimlets boring into abdomen. Slight nausea with retching. Pulse 120, small. Muscles rigid, excessively tender on pressure. Patient dreads to be moved; has frequent calls to pass water; micturition accomplished with intense pain.

Gave morphia ¼ gr.; also the following:

℞. Verat. viridis, ʒj.;
Liq. ammon. acetatis, ℥ij.

A teaspoonful every three hours. Ordered ice p. r. n. Fomentations of hops continued.

Sept. 23d.—Has passed a restless night; is delirious, the delirium of a violent character; attempted to get out of bed, and to leave the room in spite of attendant; made attempts to seize the watch while counting the pulse. Urine voided with pain. Expresses himself as feeling well, and is determined to do as pleases him best. Gave a solution containing ten grains of bromide of potassium to two drachms of water every three hours. Omit morphia. Tincturæ opii deodorat. 25 gtts., if pain should become violent.

Sept. 24th.—Patient easier; pain in abdomen less, but tenderness continues. Pulse less frequent. Passes urine with less pain.

Sept. 25th.—Much the same as yesterday; complains of feeling weak. Tenderness much less. Pulse 80. Beef-tea and wine.

From this date, the patient began to improve slowly under nourishing food, tonics, &c. The 29th, he first had a dejection of a dark and fœtid character and in large quantity. Patient made a good recovery, and is at this date engaged in active outdoor pursuits.

This case appears to the writer to present many points of interest. The absence of the testicle, the presence of hernia, the peculiar and inexplicable manner in which the testicle returned to the abdominal cavity five years previously, make it of unusual significance.

Reports of Medical Societies.

SELECTIONS FROM THE RECORDS OF THE OBSTETRICAL SOCIETY OF BOSTON.

SECRETARY, J. B. TREADWELL, M.D.

Dec. 9, 1871.—Dr. Buckingham, the President, in the chair.

Question of Congested Ovary.—Case reported by Dr. Cotting.

The patient was a lady aged 43 years, mother of four children, the youngest 6 or 8 years old. Monday, Nov. 13th, while under the care of a female physician, the patient began to have pains in abdomen, a little to the left of median line, and on a line with the anterior superior spinous process of the ilium. The pain increased daily, and became quite severe.

Wednesday, 15th, had several hot-water injections per vaginam, as hot as could be borne; these were continued to the third day subsequently, about three times daily. The patient flowed freely, and was directed to eat as much as possible. The diagnosis was "congestion of the ovary."

Monday, 18th, began to vomit, and there was great distress and tenderness in the gastric region. Appetite failed and great disgust for food manifested itself; a little gruel only could be taken. The disorder was now called "gastric fever." Bromide of potassa in water, with tr. aconit. and pil. morph. sulph. (gr. 1/8) were ordered, and taken several times. These remedies were employed while "congestion of the ovary" existed.

After the commencement of the vomiting, the following drugs were prescribed:—(1) muriatic acid, gentian and rhubarb; (2) dilute nitro-muriatic acid; (3) bicarbonate of potassa and citric acid. Several subcutaneous injections of morphia (gr. 1/10) were given. Twice castor oil (f℥i.) was administered, and followed by dejections, and tincture of iodine was applied over region of liver three times.

Monday, Nov. 27th, the former prescriptions were put aside, and a solution of bicarbonate of potassa and citric acid every hour was ordered.

The following day, Nov. 28th, Dr. C. first saw the patient. He found her feeble, exhausted, sallow and anæmic. Tongue furred; pulse 110, weak. Nausea continues; distress and vomiting on taking any considerable quantity of ingesta; tenderness over upper part of abdomen. Patient said that the acids had been productive of much distress. Ordered to omit all previously directed remedies, and to have 2 grains of oxalate of cerium and 1/32 grain of sulphate of morphia in pill every four hours. Gruel, ℥i.–ij., between pills. Absolute rest and warmth.

Nov. 29th.—More comfortable. Pill every six hours.

Nov. 30th.—Improving. Pill every eight hours.

Dec. 1st.—Pill at night.

Dec. 3d.—Convalescent; sat up, and walked to another room.

Dr. Cotting asked if there were any absolutely diagnostic symptoms of congestion of the ovaries without examinations, which few ladies would submit to, and such as the results hardly justified. "Congestion of the ovaries" and "gastric fever" seemed to be very frequent in the routine of certain classes of practitioners.

Dr. Lyman said that he had seen many cases which he regarded as cases of ovarian congestion, as indicated by pain at stool, pain in ovarian region, &c. These he had treated by leeches, warm-water injections, &c.

Dr. Sinclair said that considering the important functions of the ovaries, it would not be surprising if they were often the subjects of congestive attack. He thought, also, that if the ovaries were congested in any given case, the surrounding tissues might become involved and give rise to many of the symptoms, and thus the diagnosis become obscured.

Dr. Read coincided with Dr. Sinclair, and said he thought he had seen some cases of this disease.

Dr. Swan spoke of a case which he considered to be of this kind, characterized by pain in the iliac regions, nausea, &c.

Dr. Richardson had seen one case in Vienna, in which the ovary could be distinctly felt.

Dr. Fifield spoke of a case in which there was flowing, nausea, &c., and a body like a swollen ovary could be felt per vaginam.

Dr. Minot thought a diseased condition of the ovaries, whether it were inflammation, congestion or "irritation," he could not say, was not of rare occurrence. He had met with several cases in which pain and tenderness in the region of the ovaries (chiefly the left), accompanied difficulty or pain in walking, a disposition to flex the thigh while lying down, and painful menstruation. In some cases the affection seemed to be brought on by excessive dancing, horseback riding, skating, or other exercise. He thought there was no doubt the enlarged ovary could be felt per vaginam in some cases.

Dr. Treadwell thought that most of the cases called "congestion of the ovaries" would, if carefully investigated, be found to be something else, such as congestion of the uterus from displacement or flexion, or a local peritonitis or cellulitis, &c. Among homœopaths, everything of this nature is congestion of the ovaries.

Dr. Cotting said that no one doubted the possible occurrence of ovarian congestion and inflammation; he had recently had such a case. He had asked the question merely to determine whether such was the state of things in the case reported; his own opinion was that his patient, having been exposed to cold, had suffered from a slight local peritonitis.

Difficult Labor from a sharp Prominence at Base of Sacrum.—Dr. Abbot reported the case.

He was called, at 12½, A.M., in consultation, to see the patient, who was a middle-aged, healthy woman. Active labor had existed for six hours. The os was fully dilated and the parts were relaxed; all the liquor amnii had escaped. Examination showed that the head (which was large) had hardly entered the brim of the pelvis; a sharp prominence was detected at the base of the sacrum, its height estimated at two thirds of an inch. The head was in the transverse diameter of the pelvis, with the face to the left.

Dr. Abbot applied the forceps with difficulty—the blades to the sides of the pelvis; the handles locked, but did not quite meet. On traction, they slipped from their hold three times. An attempt was made with one blade as a vectis, to turn the head into a better position, but without success. Dr. Minot, whom Dr. Abbot had sent for to assist him, applied Simpson's forceps twice with the same result. Before resorting to craniotomy, Dr. A. made an effort to change the position of the head by introducing his hand well up into the uterus, all expulsive action of the womb being checked by the use of ether. This attempt was happily successful. So relaxed was the uterus that the head was turned with perfect ease, with the occiput to the front, and the forceps applied over the ears. During their application the head was grasped externally by Dr. Minot, and the blades of the instrument could be felt, as they were put on, with perfect distinctness through the uterus and abdominal walls. Delivery was accomplished without very great difficulty. The child was large, and of course dead. The left frontal bone showed an indentation an inch and a half long, an inch wide, and about half an inch deep, undoubtedly caused by the prominence of the sacrum. There was also a deep indentation of the right parietal bone, produced by the same cause during the ineffectual efforts to deliver before turning. The forceps had caused a laceration in front of the right ear, which was turned back. The woman had previously borne two living children of good size, without difficulty; a fact which gave plausibility to Dr. Capron's theory of such cases, referred to in the Boston Medical and Surgical Journal of May 30th, page 352. The patient recovered without a bad symptom.

Dr. Abbot said that he had recently examined the woman whose case, in some respects similar to this, was reported at the last meeting, but found no remarkable prominence; the examination, however, was unsatisfactory, owing to the tenderness of the parts, and the resistance of the woman.

Dr. Read said that Dr. Dupee once had a similar case of "projection of the sacrum," in which the child was delivered with great difficulty; and within one month of the present time, he, Dr. R., had been accosted by the same woman, who told him that she had since borne a living child.

Dr. Read also mentioned the following case. The patient, a large, fleshy woman, was delivered of her first child with forceps; of a second by craniotomy; of the third by forceps with great difficulty; the fourth naturally, before he could reach the house; the difference in the character of the labors depending upon the difference in the size of the children.

Dr. Minot said he had attended a lady who had been under the care of another gentleman in her two previous labors, the first of which took place at the 7th month, and the second at the 8th month, the child in each case being delivered with forceps, with great difficulty. The third labor occurred at full term, and was very easy and rapid; and the child was the largest of the three.

Impacted Head.—Dr. Ayer remarked that much had been said about impaction, and its existence questioned; he had seen cases of impaction which were not relieved during relaxation of the uterus.

Dr. Abbot said he did not consider that impaction existed if the head could be moved in the slightest degree. He thought the term "impacted head" was used loosely in obstetric writings with reference to cases in which there was not absolute immobility. Absolute impaction he had never seen.

Dr. Read doubted whether forceps could be applied in a case of *absolute impaction.*

Dr. Ayer thought that the forceps might be applied to the concavities at the sides of the head in cases of "real impaction."

Dr. Buckingham said that the portion of the head below the brim could swell sufficiently to produce impaction.

Dr. Cotting said that the soft parts of the mother became swollen and bound the head of the child. Some years ago, he had been called by another physician to two cases of this kind not three weeks apart! These cases had been previously under the care of midwives. The pushing back these heads was out of the question; they were firmly fixed, and convulsions had come on, so that craniotomy was performed in both instances.

Dr. Read said there was formerly a midwife in this city whose practice afforded physicians many cases of this kind; he had had cases of impaction similar to those described by Dr. Buckingham, and in which he had used forceps successfully.

Dr. Lyman asked Dr. Abbot why, as the child in his case was dead, he did not perforate, for the mother's sake?

Dr. Abbot said that he wished to avoid doing violence to the feelings of friends and attendants. There was no unusual difficulty at the last in using the forceps. Dr. A. also spoke of the advisability of employing forceps to terminate lingering labors in order to relieve the woman from suffering and exhaustion, and save her from many post-partum complications.

Dr. Lyman asked on what ground we were justified in resorting to forceps if there was progress, although it might be slow.

Dr. Buckingham said that the condition of the os uteri should decide the question. If the labor lingered after the os was dilated, use the forceps.

Dr. Abbot said that in dry labors he thought it important to use forceps to save the child from the danger of pressure on the cord.

Dr. Read mentioned the following case. He was called at 6.30, A.M., to a woman in labor. The pains were normal; the liquor amnii had escaped at 5, A.M.; the pains were rather short; there was a slight tendency to rigidity of the os. He left at 8.30, and saw the patient again at 12.30, P.M. The os became fully dilated in the next half hour. The left parietal protuberance was in the field of the os. Delivered with forceps at 1.30, P.M. The child, a boy, weighed 10½ pounds. He thought he did right in using forceps, as the woman was small and the body of the child out of proportion to the head, and the latter rather too transverse in position.

Dr. Abbot asked Dr. Lyman why he objected to the use of forceps.

Dr. Lyman said some cases had occurred here in which the results had been of a very unpleasant nature.

Dr. Read said that if forceps were well made, no injury could be done, as the blades were well protected by the head of the child.

Dr. Sinclair said there were some cases in which the perineum would be ruptured whether forceps were used or not.

Dr. Abbot said he did not drag the head through the perineum, but let the uterus push it through, removing the instrument in time to prevent laceration.

Dr. Fifield said that the late Dr. Thaxter, of Dorchester, had left on record a remark to the effect that he had never seen rupture in any case in which he had arrived too late to assist in the labor.

Medical and Surgical Journal.

Boston: Thursday, July 11, 1872.

TRANSPORTATION BY ORDER OF MEDICINE.

Under this title, a recent number of the *Pall Mall Gazette* presents its readers with a short contribution which is cynical in spirit, exaggerated in descriptive detail, and prejudicial in its reflections on physicians. Its aim is to set forth the evils of health-resorts and the ill effects attendant on the sending of patients away from their homes to seek for restoration at over-crowded and poorly appointed retreats, which, nevertheless, have a certain reputation for salubrity. It paints a dolorous picture, in most sombre colors, of a young wife, "with weak lungs," sentenced by a London doctor of acknowledged experience, to spend the winter at Malaga or Mentone or in Algiers. The husband of the patient is in moderate circumstances and can ill afford the expense, but the fiat has gone forth, the only chance for prolonged life has been forcibly indicated in a single word from an experienced but hurried doctor, home is left, business is left and the couple hasten southward. Then, according to this melancholic observer, the troubles of the sick woman just begin. The miseries of travelling, the exposures and discomforts of a poorly ordered hotel, the pitiable cooking, the lack of proper medical attendance at the resort, and even the depressing service of a sanctimonious clergyman, himself an invalid, are all delineated with vivid distinctness. And, pretty soon, the young wife dies, and the reader's obituary comment is supposed to be—"just what the patient might have expected and what the doctor did expect."

This is truly a most lugubrious view to take of change of climate in its influence on health, and is in most striking contrast with the cheerful, we may say fascinating aspect of the same subject which is shown to our readers in the present number of the Journal. The *Pall Mall Gazette* contributor may have aimed at the sensational, but he need not have gone so closely to the edge of falsehood and left his readers to infer that all people who travel for their health inevitably die before they reach home, or that all doctors are in the habit of exiling their patients indiscriminately. The only bit of moral which we can satisfactorily extract from this sad lucubration is that physicians ought to exercise the most cautious discrimination in advising a change of climate; aside from this suggestion, the article is a harmful one.

The science of climatology as applied to medicine is still very crude. Although the subject has been investigated in all sorts of ways, by all sorts of commissions, the physician is still at a loss for really fixed principles to guide him in his choice of health-resorts for his patients. To be sure, the sick man of our time may rest his hope of recovery at the "springs" on some more rational basis than on vows to propitiate the favor of the Naiades, and one is inclined to smile at the Hippocratic ideas of "airs, waters and places" in their curious details and in the quaint minuteness of description and of direction with which they illustrate the necessity of such knowledge if one "would investigate medicine properly." We have, in our time, discovered also that for salubrity a place must have other characters than an elevated position or a sea-exposure, for the cure of pulmonary disease, and that medicinal springs must possess other qualities than a vile odor and a viler taste to their waters, for the cure of cirrhosis, scrofula or cancer. Yet the very extent to which the practice of exalting the various and multitudinous health-resorts, so-called, is carried, the renewed and almost infinite advertisement, in manifold ways, in medical journals, in newspaper notices, in widely-posted circulars, of the supposed virtues of localities from Iceland to Patagonia, and from Australia to Santa Barbara, as retreats for valetudinarians, points very significantly to the fact that, for the present, at least, the absolute benefits to be derived from a change of climate are a matter for farther investigation and still *sub judice* as regards reliable principles. It may almost be said that fashion dictates which way the tide of invalids shall set, rather than any adequate scientific data.

Let it not be understood that, for one moment, we would under-estimate what has been done already in this matter by scientific observers. Many a healthy and vigorous farmer in Minnesota recalls with gratitude the warning which years ago his Massachusetts doctor gave him concerning a phthisical tendency and the advice then bestowed to leave the New England, consumption-endowed section, and to get a new lease of life on the western plateaux. And within a few days, there has come fresh from the press, a very carefully prepared and a thoroughly digested work from the pen of Dr. Wyman, indicating to the victims of autumnal catarrh or hay-fever the distinctly defined districts where they may escape their annual scourge. To such, transportation by order of medicine is a merciful sentence.

But we would emphasize those parts of Dr. Morland's paper which insist on the necessity of extreme discrimination in selecting the subjects who are best fitted for climatic changes. While the beautiful and healthful localities at the south and west are so inaccessible, and while the comforts and conveniences, which, to an invalid, are absolutely essential, are so deficient, it behooves physicians to think twice before declaring a judgment the possible issue of which is a miserable "expatriation" of the invalid from his home, with a hurried and painful return when the ineffectual search for restoration is plainly about to terminate in death. So long as the present condition of things, as regards health retreats exists, so long as the well-ordered *sanitaria* are so few in number, so long as the modes of transit and the essential comforts and proper food are so deficient in quantity and quality, just so long should medical men advise the trip southward or westward with deliberate circumspection, keeping always in view the fact that the benefits of the change are profitable to only a small minority of patients, to those, in fact, who are well enough to shift for themselves and to bear the fatigues, the exposures and the discomforts of the journey and of the sojourn without a disastrous expenditure of strength.

After such reflections, it is needless to urge the wisdom of Dr. Morland's counsel that, in every case, the question of the benefits to be derived from a change of climate should be left with the physician as a matter demanding the soundest judgment and the wisest discrimination, and one concerning which the patient himself or his friends can have no adequate opinion.

We are sure our readers will appreciate the importance of Dr. Morland's interesting and valuable paper, and will join us in the desire for more testimony of the same direct and positive kind concerning health resorts.

LEARNED VS. VULGAR CREDULITY—A QUERY. —"In the seventeenth and eighteenth centuries, it was a very common belief, and accepted on the most slender evidence, that there were poisons in use so subtle that they might be conveyed in a letter, which would prove fatal to the reader, or [might be] inhaled in the fragrance of a bouquet. We might to some extent credit these accounts if we had grounds for supposing that the poisoners of old were skilful enough to isolate the zymotic poisons —the only poisons we know which can be carried in such a way."

We would like, in all seriousness, to ask Prof. Ferrier, from whose very learned lecture on Forensic Medicine at King's College, last May, we take the above extract, on what "evidence" he affirms that we "know" that there are "zymotic poisons;" and, more especially, on what more than "the most slender evidence" do we know that such poisons, if there be such, "can be carried in a letter which would prove fatal to the reader, or can be inhaled in the fragrance of a bouquet"? Has not the term *zymotic*, up to the present time, been merely a learned expression to cover ignorance? Mr. Simon, an undoubted authority, "scouts the notion of any true fermentation," says Dr. Watson, in his last edition; adding that Liebig could only have meant "analogically, just as we all speak now-a-days, of zymotic diseases."

What can be expected of poor "ignorants" if learned professors with their superior knowledge and wisdom show such credulity in their very teachings from the College desk?

We pause for a reply.

SUNSTROKE.—The recent almost unprecedented season of heat, unusual for its intensity and prolonged continuance, gave evidence of its character in an uncommon number of cases of insolation, in this city and elsewhere. The city registrar's mortality report for last week, presents a suggestive exhibition of the fatal effects of the four days' heat, and we are informed that an unusual number of cases of sunstroke and of heatstroke were admitted to hospital treatment.

We propose to present to our readers, in a future number, a comparative report of the methods of treatment employed in the hospitals of this city, for this generally critical affection, with the results attained.

IT is said that each year from 100,000 to 150,000 persons in England have typhoid fever.

From British Journals.

Anatomy of the Placenta.—At a meeting of the Obstetrical Society of London (reported in the *Medical Times and Gazette*, for June 15, 1872), the President, Dr. J. Braxton Hicks, read a paper on the Anatomy of the Human Placenta. He argued from results obtained by himself from the dissection of specimens, against the theory of John Hunter and others that the uterine sinuses and the cavity of the placenta are continuous, so that the blood passes directly from the former to the latter. He maintained that the force of the syringe used by Hunter was very likely to break through the delicate walls of the vessels and to cause an irruption of blood amongst the villi. The fact that blood is usually found in the cavity of a placenta naturally shed is due to lacerations which easily occur at the time of its delivery.

To substantiate his theory, the author instanced the behavior of uterine hæmorrhage. If the placental cavity were supplied with blood directly from the mother, any rupture into its cavity ought to be attended by severe and prolonged loss of blood, which is not the case.

Bromide of Potassium.—In the *British Medical Journal*, for June 15th ult., Dr. Spender makes the following observations concerning the action of this agent:—

"Although Bromide of Potassium belongs to the same chemical group as potassic iodide, it has very distinctive therapeutic properties. My experience of it in the treatment of epilepsy amounts to this; in a large proportion of cases it relieves (or 'cures') only so long as it is administered. As an American writer (whose name I forget), well puts it, bromide of potassium *feeds* nerve-tissue as an antidote to convulsion, and therefore requires to be continuously given like food. Certain it is that, if an epileptic patient insist upon leaving off his medicine because he believes himself to be well, a prognosis ought to be given that the malady will probably return. Further, I am confident that the efficacy of the bromide is enhanced by the addition of strychnia; so that our most advanced therapeutic knowledge about epilepsy is now possibly represented by the union of these two medicines."

On Lienteric Diarrhœa in Children.—This form of diarrhœa is described in an article by Dr. Eustace Smith (*Medical Times and Gazette*, June 8, 1872), who reports several cases as illustrations. It is not uncommon among children from three or four to nine or ten years of age, and is ascribed to an abnormal activity of peristaltic action, by which the food is hurried through the digestive tract with a degree of rapidity which allows but little digestion to take place during its passage. The stools are therefore composed chiefly of undigested food, and mucus, with but little fæcal matter, and presenting a slimy appearance. The bowels act three, four or more times in the course of the day and either during or directly after meals, each motion being preceded by griping noises, and characterized by excessive urgency. In this variety of diarrhœa food appears to pass with extraordinary rapidity along the alimentary canal, and to be voided in almost the same state in which it was swallowed.

The Arteries in Bright's Disease.—The *Medical Times and Gazette* of June 15, 1872, reports a recent discussion before the Royal Medical and Chirurgical Society on the condition of the arteries in chronic Bright's disease. Dr. George Johnson contends that in this disease, especially where there is the contracted kidney, there is muscular hypertrophy in all the arteries of the body, causing an increase of the thickness of the muscular coat, due to an increase in the number of the muscular elements. Sir William Gull and Dr. Sutton, on the contrary, believe that this thickening is due to a hyaline-fibroid material, and that the muscular coat is in reality degenerated. Both parties brought forward specimens to substantiate their views. But the verdict seemed to be in favor of Dr. Johnson.

The cause of the error of Drs. Gull and Sutton is attributed to faulty preparation of the pathological specimens and to a misinterpretation of appearances artificially produced. In one specimen where a large vessel seemed to be cut transversely, it was in reality obliquely cut. Its walls seemed enormously hypertrophied; one cause being the oblique section, another that the elements were so soaked as to appear all of one kind. The article states that the elements soaked in glycerine and water were swollen and agglutinated, and presented exactly the appearance described by the authors as hyaline-fibroid.

On the Use of the Bowl during Delivery.—Dr. J. Matthews Duncan, in a paper read before the Obstetrical Society of Edinburgh *(Edin. Med. Jour.*, June, 1872), recommends the use of an ordinary washbowl in the place of cloths, for the purpose of catching the discharges which come from the vulva during labor.

The bowl should be capable of holding two pints, and is to be kept under the hips, if the woman lies on her back, and under the upper and posterior part of the thigh if she lies on her side. It is applicable at all times during the various stages of labor to receive the liquor amnii, the placenta and post-partum hæmorrhage. Dr. Duncan cites a number of cogent reasons for the use of the bowl in preference to the use of cloths.

First. The plan proposed has the advantage of cleanliness. Receiving the discharges in a vessel saves the person of the patient, the clothes and bed linen from being soiled.

Second. The bowl is inexpensive and is always at hand; and for this reason it is particularly applicable in the case of the poor, who form the majority of patients, and who are not always able to provide a supply of clothes adequate to the requirements of an ordinary labor.

Third. The use of the bowl tends to guard the woman from the injurious effects of damp and cold by facilitating the removal of the liquor amnii, blood, meconium, and thus clearing the surrounding atmosphere of noxious germs and decomposing animal matters. Injudicious exposure to dampness and cold is not only incompatible with the comfort of the woman, but is also injurious as promoting disease both directly and indirectly, the influence of cold during and after delivery being particularly dangerous.

Fourth. The use of the bowl possesses the important advantage of enabling the attendant to form a better estimate of the quality and quantity of the discharges. In many cases of flooding it is of no little importance to ascertain with some approach to accuracy the amount of blood that has been lost. Our ideas in this particular must be exceedingly vague, if the fluid has been absorbed by cloths.

A shallow metallic basin *(schalle)*, having somewhat the form of a kidney and capable of holding about a pint, is commonly employed in Vienna for the same purpose as the earthenware bowl suggested by Dr. Duncan. This is found to adapt itself more readily to the shape and position of the woman. It is customary to heat it, by dipping it into warm water, before applying it to the patient. This basin is sometimes made of India-rubber. In addition to the advantages enumerated by Dr. Duncan, the basin is particularly serviceable wherever it becomes necessary to draw off the urine with the catheter, and also in case of the involuntary discharge of fæces.—Eds.

Pathology of Œdema.—The *British Medical Journal* of June 15, has an article upon the Pathology of Œdema. It states that the influence of the nervous system over the production, as well as the removal and inhibition of dropsies, was pointed out by Dr. Laycock, of Edinburgh, six years ago. His conclusions, drawn from clinical experience, have been confirmed by Ranvier and Goltz. Those of the former show how the nervous system may permit œdema to occur by allowing an excess of fluid to exude from the bloodvessels into the tissues; those of the latter explain the occurrence of œdema from insufficient absorption. The theory that œdema is due solely to venous obstruction is derived mostly from two experiments made by Lower about the year 1680. In one of these, he found ascites to be produced by tying the vena cava within the thorax of a dog; and, in the other, that ligature of both jugulars was followed by œdema of the parts above the ligature, and by increased tears and saliva. This theory received the support of Bouillaud in 1823, who described cases of local œdema resulting from thrombosis, and attributed its occurrence to clots in the interior of the veins preventing them from performing their absorbent function.

Ranvier obtained very different results from the repetition of Lower's experiments. Neither ligature of the jugulars nor of the femoral was followed by œdema. On tying the inferior cava, taking care not to injure or include the nerves, both legs became cold, but no œdema resulted. If, however, one of the sciatic nerves—which Bernard has shown to contain the vaso-motor nerves of the leg—was then cut, the cutaneous vessels of that leg dilated, the color of the limb became rosy, and it felt hot, instead of remaining cold like the other. Within an hour œdema was noticed about the tendo-Achillis, and in twenty hours the leg had become intensely swollen. To show that this effect was due to division of the vaso-motor nerves of the leg, and not to the paralysis consequent on the division of the motor fibres of the sciatic, the experimenter divided the latter class of nerves and left the vaso-motor unharmed. There resulted complete paralysis of the leg, but no œdema occurred. These experiments seem to show that venous congestion alone is not sufficient to produce œdema. The experiments of Goltz, now to be mentioned, support the view that the œdema which followed the section of the nerve was due to an unusual amount of fluid being poured out from the dilated vessels.

Goltz rendered two frogs motionless by poisoning them with curare, and then destroyed the brain and spinal cord of one, while he left those of the other unharmed. He then injected a solution of common salt into the lymph-sac of each, and found that from the divided aorta of the one whose brain and spinal cord had been destroyed, not a drop of fluid fell, though the hearts of both continued to beat, while from the other, at first pure blood, then diluted blood, and at last a colorless fluid flowed, and that just in proportion as the fluid which trickled from the aorta filled the vessel which was placed to collect it did that in the lymph-sac diminish. Having thus shown that destruction of the nervous system arrests absorption, he also found that when the nervous centres were stimulated the rapidity of absorption was much increased.

In some additional experiments, he found that destruction of the nervous system allows fluid to exude more easily from the vessels, as well as hinders its absorption into them. This result coincides with those attained by Ranvier.

"The absence of œdema in one person and its presence in another, without any difference in the amount of venous congestion in the cases, as well as its occasional occurrence in an individual without any increase in the congestion being perceptible, are readily explicable in the light of the facts proved by Ranvier and Goltz, that congestion alone does not produce œdema as long as the vaso-motor, or rather absorbent, nerves are active, but does so as soon as their power is lessened or destroyed." The retention of urinary products in the blood is a source of irritation to the vaso-motor centres, and in cases of renal disease where this retention occurs we might predict, what clinical experience shows to be true, that œdema would not occur. "We should also expect that the application of any irritation to the vaso-motor centre, such as might be produced by pressure, would cause the absorption of dropsical fluid already effused; and this centre being situated within the cranium, the concurrence of cerebral symptoms with the disappearance of œdema thus becomes readily intelligible."

A New Method of Treating Hydrocele.—Hydrocele is one of those affections, which, at different times, has had a great variety of treatment. Among the plans resorted to from time to time may be mentioned:—1, *Treatment by acupuncture*; 2, the *application of an evaporating lotion*, such as muriate of ammonia; 3, *simple tapping*; 4, *laying open the sac*, a plan now abandoned; 5, *excision of a portion of the tunica vaginalis*, also now given up; 6, *evacuating the fluid and introducing some caustic on the end of a probe*; 7, *the introduction of a tent into an open wound*, as performed and praised by Paré, Larrey, and others; 8, *passing a seton through the vaginal sac, and there retaining it for twenty-four hours*, a procedure similar to the last, and said to be common among the Arabians; 9, *tapping and injecting the vaginal sac*, an operation first recommended by Celsus, who advised nitre as the best injection. This plan was revived by Monro, the elder, and of late years popularized by Sir Ranald Martin, whose claim to originality lies in his choice of iodine as the most suitable stimulating agent. This has practically superseded all other modes.

All these plans are open to one common objection, viz:—that they are occasionally unsuccessful, and at times even hurtful in their results. Dr. S. Messenger Bradley of Manchester (*British Medical Journal*, June 1, 1872), suggests the plan of *tapping and strapping* as a simple and in most cases efficient means of cure, and one which should in all cases be tried before the injection of iodine or other stimulant is resorted to. This method is based upon the fact that the walls of pyogenic membranes, such as those of abscesses, sinuses and the like, will often agglutinate when brought into firm and continual apposition. Dr. Bradley argues that inasmuch as the secretion poured out in hydrocele is of an inflammatory, and not a dropsical character, his mode of tapping, and then firmly strapping the affected side with soap-plaster will generally be followed by an obliteration of the vaginal sac, and a consequent radical cure. The pressure should be continued for several weeks. The result of this treatment in the four cases in which it has been applied appears to bear out fully the conclusions of the writer.

"Kidinga Pepo."—Dr. James Christie, physician to the Sultan of Zanzibar, gives in the *British Medical Journal* for June 1, 1872, an interesting account of an epidemic known in that island under the above title, which means "cramp-like pains produced through the agency of an evil spirit." Dr. Christie considers this affection as closely allied to, if not identical with the contagious disease known as dengue or scarlatina rheumatica (a careful description of which has been given by Dr. Wood). It prevails chiefly in Rangoon, Calcutta, Berhampore, Patua, Benares, and Chunaighur in the East Indies; the island of St. Thomas, the ports on the Gulf of Mexico, the Southern States of America, and the cities of New Orleans, Savannah, Charleston, Philadelphia and New York. The dengue was epidemic in America in 1824–'28, in 1847–'50 and more recently an epidemic is described as having occurred in Virginia (*Amer. Med. Times*, Feb. 16, 1861). The symptoms of the affection are characteristic and well marked, occurring in regular order of sequence. The most prominent of these are pain and stiffness of the muscles and small joints, which swell; this is succeeded by a general febrile state, and on the third or fourth day the appearance of a cutaneous eruption resembling at some times scarlet fever, or erysipelas, and at others the measles. There is also swelling of the lymphatics of the neck, axilla and groin. The disease continues from seven to eight days, and terminates in desquamation of the cuticle. In the epidemic here described, it was observed that the mucous membrane of the mouth, nose and throat were implicated by the redness and tenderness of these parts, while in severe cases an aphthous eruption appeared, giving rise to a painful tumefaction of the lips and nose. Dr. Christie's knowledge is derived not only from observation of a large number of cases, but also from personal experience, having himself been the first European to be attacked with the disease. In case of a previous epidemic in this island, it was affirmed by the natives that the symptoms were more severe, and that there were many deaths, especially among children. It was also stated that in many cases the stiffness of the joints was permanent, and that the joints remained large and hard, indicating chalky deposits.

The mortality in London during the last week of June was at the rate of 22 deaths annually in every 1,000 of the population.

From American Journals.

Action of Chloral.—In the *New York Medical Journal* for June, 1872, Dr. Robert Amory, of Boston, details an account of "experiments on animals, disproving the theory that chloral hydrate acts on the organism on account of its decomposition into chloroform, by the alkaline carbonates in the blood." The following is an extract: "From the above experiments, it will be seen that it is not possible to obtain decomposition of chloral into chloroform when the former is mixed with warm, fresh blood, and it is hardly probable that this decomposition occurs in the organism. The decomposition does not occur if the solution of chloral is separated from the blood by a membranous substance such as a sheep's bladder. If, on the contrary, the blood is made strongly alkaline by the addition of caustic soda, the decomposition suggested, but never proved, so far as the author of this article can determine by Liebreich, Richardson and others, does take place. Now, it is hardly possible to suppose that a dose of chloral received into the stomach can pass through the tissues and be absorbed by the blood, any more readily than could have occurred in the fifth experiment related, where a sheep's bladder only lay between the chloral solution and the liquid blood."

The author concludes that we cannot at present admit the theory that the symptoms following the use of chloral are the same as we obtain in chloroformization.

Xylol.—Dr. Moffett, of Philadelphia, reports in the *Philadelphia Medical Times* for June 15th ult., a case of confluent variola in which he used this remedy. The patient was a German woman, æt. 42. She was fast sinking under his usual method of treatment. On April 8th, her pulse was 155, respiration 50; ends of fingers and nails purple, and in every way her condition was unfavorable. He prescribed:—

℞. Olei xylol, gtts. cc.;
Pulv. acaciæ, q. s.;
Syrupi simplicis,
Aquæ, āā ℥j. S. Teaspoonful every two hours.

The next day all the graver symptoms had disappeared, and April 19th she was able to go about the house. Dr. M. has tried this remedy in a number of cases since, and its use has always been attended with the most happy results.

Per Contra.—We are informed by Dr. Webb, Physician to the Smallpox Hospital in this city, that, after a faithful trial of xylol, he has become convinced that it is not only useless as a curative agent in variola, but that it does positive harm. He found that its exhibition produced such gastric irritability as to preclude the taking by the patient of a sufficient amount of nourishment, and to secure the latter most important point in the treatment he was obliged to suspend the drug, before the close of the disease, in all except the mildest cases.—Eds.

Cold Food for Infants.—Under this heading, Surgeon King, U.S.A., writes to the Philadelphia *Medical Times* as follows:—"Our best authorities direct that the [cow's] milk should be given to the child at the same temperature as that of the mother's milk—from 90° to 95° Fahrenheit—and, when great accuracy is required, a thermometer employed. On reflection, it is obvious that these instructions can never be carried out so that the little one will take all its food at the same temperature; for during a meal the bottle becomes cold, and there may frequently be considerable difference of temperature between the first and the last milk imbibed by the infant. It is unnecessary to state that very little will upset the feeble powers of the digestive organs in the early days of infantile life; and this difference in the temperature of the food, I am disposed to believe, is one of the causes of gastric and intestinal disorder which we so often have to deal with among infants brought up by hand.

"Instead of giving warm milk, I have adopted the plan of giving cold milk entirely—ordering the babe's bottle to be kept standing in iced water in the summer and in a cold place in winter. This method I have found, from practical experience, to answer remarkably well. If there is any tendency to diarrhœa, I recommend the milk to be heated to 212° F., and afterwards allowed to get quite cold before being used. In private practice, I am of opinion that bottle-fed infants generally have their food given them too warm. * * * * They soon like it even better than warm food, and during the teething period cold milk seems especially agreeable to the inflamed gums of the little sufferers."

The above plan for the preparation of food for infants is worthy of trial. We all know the difficulty of having artificial food properly prepared, notwithstanding minute directions are given concerning it and the importance of keeping the nurse-bottle scrupulously clean. Many devices are resorted to by those who have the care of infants to avoid the trouble of freshly preparing the food every time it is wanted, and the temptation is great, particularly at night, to have in readiness a quantity sufficient for several meals. As a consequence come the various disturbances to the system resulting from the ingestion of food which is often sour before it is taken. If it can be given cold without detriment to the child, there seems to be no good reason why the diet should not always be fresh.—Eds.

Pregnancy complicated by Scirrhous Disease.—At a recent meeting of the San Francisco Medical Society (*Pacific Med. and Surg. Journal*, June, 1872), Dr. Gibbons reported the facts of a case, and desired the opinion of the members regarding it. A woman is now pregnant with her fifth child, and has a hard tumor, probably scirrhous, the size of half an English walnut, on the posterior lip of the uterus. Dr. Gibbons wished to know whether it would be proper to excise the tumor at the risk of causing abortion, or to cause abortion first and then excise the tumor.

In reply, one member stated that he would not remove the tumor unless it should grow to such a size as to interfere with delivery. If the tumor were now excised it might cause abortion, and he apprehended that if abortion were induced the progress of the disease might be accelerated.

Another member thought that it accorded with universal experience that cancer is stayed in its progress by uterine evolution; that cancer of the breast is often delayed in its progress by lactation. He agreed with the previous speaker that the tumor should not be removed.

Terrible Death Record in New York.—The deaths last week, ending at noon Monday, were 1569, the largest death-roll of any week in the history of the city. There will be a general inspection of the tenements throughout the city by physicians of the Board of Health, made necessary by the great mortality.

Medical Miscellany.

THE INTERNATIONAL OPHTHALMOLOGICAL CONGRESS.—Dr. Henry W. Williams, of Boston, President of the American Ophthalmological Society, sailed for Europe on Tuesday in the "Italy" from New York. Prof. Williams goes out to attend the International Ophthalmological Congress to be held in London August 1st next.

We learn that Drs. B. J. Jeffries and Hasket Derby, of this city, will also attend the same Congress.

BOSTON CITY HOSPITAL APPOINTMENT.—Dr. George J. Arnold has been appointed a Visiting Physician, vice Dr. J. P. Reynolds, resigned.

DR. FRANCIS DANA, who died in Cambridge recently, was a son of Francis Dana, Esq., brother of the poet Dana. He was educated at Harvard, with the class of 1827, but left College before graduation to engage in the study of medicine. Receiving his degree in 1831, at Harvard Medical School, he practised for some time in the western part of the State and in more distant sections. The last years of his life he was librarian of the American Academy of Arts and Sciences. In 1867, at the request of his classmates, he had the degree of A. B. conferred upon him, so that he might thereafter appear on the record as a member of the class in full standing He was highly esteemed as a gentleman of the strictest integrity, and as a man of science. At the time of his death, he was 65 years of age. His health has long been precarious, and death was not unexpected.

WE learn that Dr. F. I. Knight sailed from London July 2d, in the Algeria for New York. As heretofore, his office will be at Dr. Bowditch's residence, 113 Boylston St.

WEEKLY MORTALITY OF BOSTON.—There was a frightful increase in the rate of mortality in this city the last week, the number of deaths according to the report of the city registrar being 228, while that of the previous week was 126; an increase of 102. There were 28 cases of fatal sunstroke reported, but it is probable that several of those reported from other causes were occasioned by sunstroke. The children, as usual, were most affected by the heat, 105 of the number of deaths being those of children under five years of age. There were 34 fatal cases of cholera infantum, the largest number of deaths from any one complaint.

SMALLPOX IN BOSTON.—During the three months ending with June, 373 cases of smallpox were reported to the city physician, and there were 101 deaths.

THE DEATHS FOR LAST WEEK IN PHILADELPHIA were 764, an increase of 350. One-half of the deaths were children under a year old.

TREATMENT OF DIABETES INSIPIDUS.—M. Gueneau de Mussy, in a clinical lecture at the Hotel Dieu, recommends the administration of full doses of belladonna, and sulphurous baths, in the treatment of diabetes insipidus. He has twice found belladonna to accidentally produce anuria. Its use in incontinence of urine is well established. Systematically employed in diabetes insipidus, it has diminished the quantity of urine passed from ten pints to two pints *per diem.* The sulphurous baths bring the skin to the relief of the kidney.—*Brit. Med. Journal.*

ERRATA.—On page 425 of the JOURNAL for June 27, line 17, for "privilege" read *pupilage.* On page 11 of the number for July 4, read *pour* instead of "for."

PAMPHLETS RECEIVED.—Annual Reports of the Board of Visitors, Trustees, Treasurer and Superintendent of the New Hampshire Asylum for the Insane. Pp. 54.—Timely Counsel, or Short Essays on Social Subjects. By Surgeon-Major T. Atchison, M.R.C.S.E., L.S.A., &c. London. Pp. 102.

Deaths in sixteen Cities and Towns of Massachusetts, for the week ending July 6, 1872.

Cities and Towns.	*No. of Deaths.*
Boston	228
Charlestown	9
Worcester	38
Lowell	24
Chelsea	7
Cambridge	10
Salem	14
Lawrence	28
Springfield	18
Lynn	12
Fitchburg	3
Taunton	8
Newburyport	4
Somerville	6
Haverhill	3
Holyoke	31
	443

Prevalent Diseases.	
Cholera Infantum	89
Consumption	47
Sunstroke	30
Pneumonia	20
Measles	15
Scarlet fever	13
Dysentery & Diarrhœa	12

There were nine deaths from smallpox in Boston and one at Holyoke.

Of the deaths from sunstroke, twenty-eight were in Boston.

Of the deaths from cholera infantum, thirty-four were in Boston, thirteen in Worcester, eleven in Springfield, and ten in Lawrence.

Of the deaths from measles, eleven were in Holyoke.

Of the deaths from scarlet fever, six were in Worcester.

GEORGE DERBY, M.D.,
Secretary of State Board of Health.

DIED,—In Cambridge, 8th inst., Francis Dana, M.D., a graduate of Harvard University, aged 65.

DEATHS IN BOSTON for the week ending Saturday, July 6th, 228. Males, 143; females, 85. Accident, 8—apoplexy, 4—inflammation of the bowels, 3—disease of the bowels, 1—bronchitis, 4—inflammation of the brain, 3—congestion of the brain, 8—disease of the brain, 10—burned, 1—cerebro-spinal meningitis, 3—cancer, 2—cholera infantum, 34—cholera morbus, 2—consumption, 24—convulsions, 5—croup, 1—debility, 4—diarrhœa, 4—dropsy, 3—dropsy of the brain, 2—drowned, 2—scarlet fever, 4—typhoid fever, 4—gastritis, 1—disease of the heart, 5—hæmorrhage, 2—disease of the kidneys, 4—congestion of the lungs, 2—inflammation of the lungs, 5—marasmus, 12—measles, 1—old age, 1—paralysis, 1—pyæmia, 1—premature birth, 2—peritonitis, 2—puerperal disease, 1—rheumatism, 2—disease of the stomach, 1—suicide, 1—smallpox, 9—sunstroke, 28—teething, 3—whooping cough, 3—unknown, 6.

Under 5 years of age, 105—between 5 and 20 years, 18—between 20 and 40 years, 59—between 40 and 60 years, 28—above 60 years, 18. Born in the United States, 147—Ireland, 64—other places, 17.

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Original Communications.

ADIPOCERE.

Read before the Massachusetts Medical Society, at the Annual Meeting, 1872,

By Benj. H. Tripp, M.D. Bowd.

Adipocere is comparatively of rare occurrence. As most commonly found, it is the product of a spontaneous conversion of dead animal tissue into a saponaceous or fat-like substance, resembling spermaceti.

It may be produced by artificial means; and possibly also by morbid causes in the living subject, both human and brute.

In the order corresponding to these modes of its production, namely, the *spontaneous*, the *artificial* and the *morbid*, it is proposed to arrange the facts collated in the present paper.

The *spontaneous*, chemical change into adipocere is most frequently met with in the disinterment of human bodies, long buried. It occurs under various, and apparently dissimilar conditions. Certain degrees of humidity and temperature are, perhaps, the conditions most common in all reported cases. But these are obviously only accidental, or at most auxiliary, causes. Out of a large number of bodies buried under apparently precisely similar conditions, only one, or even a portion of one, may be found to have undergone this metamorphosis.

The essential cause, then, is the problem which yet remains to be solved. Accumulation of facts may ultimately lead to the discovery of the occult cause of this singular transformation; but up to the present time, scattered contributions to this common stock comprise all the results thus far reached,

Eighty-three years ago, Fourcroy, who may be regarded as the scientific discoverer of this peculiar substance, read the first memoir on the subject before the Royal Academy of Sciences; and to his researches and experiments we are largely indebted, even at this day, for any accurate knowledge of adipocere. Since that time, other observers have added to the record important facts.

The specimen here exhibited is one of this singular *post-mortem* spontaneous change. It was obtained by the writer on the 31st day of May, 1864. A gentleman from Leicester was engaged on that day, in superintending the removal of seven bodies from the old burial-ground on the summit of the hill in the village of Rutland, in Worcester county, to the family lot in the new cemetery. He was struck with the remarkable peculiarity presented by one of the bodies, and supposed it might be a petrifaction. He very kindly informed me of his discovery, and I accompanied him to an examination of the body and its surroundings. The remains of each of the several bodies—consisting principally of the skulls, larger bones, fragments of the smaller bones and those portions which had undergone complete disorganization—had been carefully collected and placed in separate boxes. The body in question, however, presented a marked difference from the others. From the margin of the ribs down to the instep, this body had preserved the complete size and contour of the original form. The right arm and fore-arm, which were separated from the trunk, and in a semi-flexed position, were also in the same state of preservation. These portions, as has been stated, had preserved their normal size; indeed, the size appeared to be augmented beyond that of a body dead of a wasting, attenuating disease. The limbs were round, full and plump; the pelvis large, broad and full. The surface was black as if it had been charred. The remaining portions of this body were in the same state of disorganization with the other bodies—more or less crumbled to pieces.

Upon further inspection, it was at once evident that the change was not that of petrifaction, but the very rare one into adipocere. This adipocirous substance occupied the place of the original soft parts, and formed a crust or hollow investment, within which were loosely contained the partially decomposed bones and other substances. This crust was black in both external and internal aspects, dry, and easily fractured like hard cheese—the fractured surface having a dull white color. The specimen exhibited is a portion of the abdominal walls, and has considerably diminished by keeping eight years. It is easily melted, requiring rather more heat than spermaceti, and flowing like that substance. There is a small residuum which, on further application of heat, becomes crisped and charred like ordinary animal tissues. This is the only test which has been applied.

The history of this case before death, as furnished by a surviving sister, contained nothing remarkable. The body, which had been interred fifty-one years, was that of a female, 19 years of age, who had died of consumption of six months' duration. There was the emaciation usually occurring in this disease.

The grave was distant from the others five or six feet, and in no way perceptibly differed from them, except that it was found somewhat drier. The sub-soil is a mixture of gravel and clay, and is usually very wet—so wet that, at some seasons of the year, when graves have been excavated, it has been necessary to bail out the water, before placing the coffins therein. It was principally for this reason that this burying-ground was abandoned.

The coffin containing this body was in a state of much better preservation than any of the others, although one of the others had been buried only fifteen years. The top of the coffin had fallen in, so as to rest upon the body; but in other respects it was sufficiently intact to perfectly preserve its form. In all the other cases, there were only fragments of rotten wood, mingled confusedly with the dead bodies. With the single exception of the more recent interment named above, all the other bodies had been buried nearly the same length of time.

Numerous disinterments have, from time to time, been made in this burying-ground, within the last twenty-five years, but in no other instance has the same phenomenon been observed.

Fourcroy's cases are mostly those of spontaneous conversion, and were principally furnished by the occasion of exhuming a large number of bodies from the Cemetery of Innocents in Paris. At the time of clearing this ancient burying-place, "the remains of the human bodies, immersed in this mass of putrescence, were found in three different states, according to the time they had been buried, the place they occupied, and their relative situations in regard to each other. The most ancient were simply portions of bones, irregularly disposed in the soil which had frequently been disturbed. A second state, in certain bodies which had always been insulated, exhibited the skin, the muscles, the tendons and aponeuroses, dry, brittle, hard, more or less gray, and similar to what are called mummies in certain caverns where this change has been observed. * * * The third and most singular state of these soft parts, was observed in bodies which filled the common graves or repositories." In those large graves which had been closed fifteen years, the coffins were found in good preservation. "When the covers of several were taken off, the bodies were observed at the bottom, leaving a considerable distance between their surface and the cover, and flattened as if they had suffered a strong compression." The bones were environed on all sides by a soft, ductile matter, which resembled common white cheese, yielding to the touch and becoming soft when rubbed for a time between the fingers. "With water, this fatty matter exhibited all the appearances of soap, and afforded a strong lather. The dried substance did not form the same saponaceous combination with the same facility or perfection as that which was recent."

It will be observed that in this description of Fourcroy's cases, which is a brief digest from his memoir, there appears a difference, in one respect at least, from the Rutland case. Instead of an expansion in bulk, here was evidently a contraction—a flattening as if from a "strong compression."

It is, perhaps, not easy to explain this seeming discrepancy. But if we admit as correct, some of the speculations indulged in by Fourcroy, and particularly his theory of a saponification, it may be suggested in explanation, that the conversion of tissue into the waxy matter, or true adipocere, is the primary stage in the metamorphosis, and is marked by increased bulk. Subsequently—and especially in situations so favorable for its elimination as that of Fourcroy's observations—ammonia may be formed by the combination of azote—an abundant principle in animal matters—with hydrogen. In the further process of change, the adipocirous matter is saponified by uniting with the ammonia, is *lessened* in bulk, and then presents the physical properties described in the memoir.

Another marked difference distinguishes

these two typical cases, namely, the character of the earth in which the interments had been made. In our rural burying-grounds, each object is surrounded by a portion of the virgin soil; and is so far isolated from others as to be uninfluenced thereby. In the other case, it was the burying-ground of a large district, wherein successive generations of its inhabitants had been deposited for upwards of three centuries; the soil was overloaded and reeking with bodies abandoned to the putrefactive process. Yet under conditions so utterly dissimilar, we find the same peculiar disorganization which destroys the original texture, and produces from its elements, a new and most permanent state of combination.

No less striking is the difference as it regards warmth and moisture. Dr. Samuel Akerly, of New York (Ed. Notes—Hooper's Med. Dict.—Art. Adipocere), states that a barrel of meat, which had undergone a change and become adipocere, was raised from the British Frigate Hussar, sunk near Hell Gate, during the Revolutionary War, where it had remained in eight or ten fathoms of salt water near fifty years. * * * * * A box of candles, taken from a sunken wreck on the coast of Brazil, was changed in appearance and consistence, and had become a mass of adipocere. The bones of a huge cetaceous animal were dug up in the low grounds about New Orleans; when they were exhibited as a show in New York in 1828, adipocere was discovered in the cells of the spongy part of the jaw-bone."

In strong contrast with these instances is the one related by the same writer, where "the body of a female, consisting of a solid mass of adipocere, was dug up in dry ground, near the City Hall in New York."

Dr. Draper says in his Human Physiology (p. 247) that "the change in question does not altogether depend on the condition of the earth of the grave as respects moisture or other such physical state;" that he has had "the opportunity of verifying [this fact] in the case of a subject which had been disinterred in a condition of perfect preservation so far as exterior appearance went, but which had been wholly converted into adipocere. Yet, from the same burying-ground, many other bodies were disinterred, but none had undergone a like change."

The same transformation has been observed from long exposure to the air only. Poulletier suspended a piece of the human liver in his laboratory for more than ten years. At the expiration of this time, it was found to be changed into an imperfect adipocere.

The *artificial* production of adipocere is accomplished by three methods.

"Muscular fibre, *macerated in dilute nitric acid* and afterwards well washed in warm water, affords pure adipocere, of a light yellow color, nearly of the consistence of tallow, of a homogeneous texture, and, of course, free from ammonia. This is the mode in which it is now commonly procured for chemical experiments." (Hooper.) Dr. Gibbes, of Oxford, "took three lean pieces of mutton and poured on each a quantity of the three common mineral acids. At the end of three days, each was much changed; that in the nitric acid was very soft, and converted into the fatty matter; that in the muriatic acid was not at that time so much altered; the sulphuric acid had turned the other black." (Ibid.)

Immersion in running water very speedily converts muscular fibre into adipocere. Dr. Akerly states that he has "seen a piece of meat raised out of a well, by pumping, into which it had fallen, and where it was completely changed into adipocere." Dr. Gibbes also "found that lean beef secured in a running stream was converted into this fatty matter at the end of a month."

The *third* method of artificial production, namely, by long exposure to the action of the air only, is suggested by the experiment of Poulletier, already alluded to.

If the subject of adipocere has any clinical value to the physician, it must be in its possible production by *morbid causes* in the living subject. The recorded facts, however, which suggest such an inference are meagre; and, perhaps, insufficient to warrant assuming disease to be one class of the agents concerned in its production. Without, however, espousing any hypothesis of this kind, it is sufficient for the present purpose to arrange under this assumed division such phenomena as look in this direction.

While making a very limited examination of authorities on this subject, it was observed that most writers pass very readily from the discussion of adipocere, as formed by chemical change of the dead animal tissues, to a consideration of those fatty degenerations which occur through a morbid process in the living body. The connected consideration of these kindred substances seems a very natural one, although there may be a radical difference in their chemical properties, as well as manner of production.

Ambergris, which is occasionally found in immense quantities in the lower intestines of the spermaceti whale, is the result of a diseased process. It is found "to contain adipocere in large quantity, rather more than half of it being of this substance." According to the analysis of Boillon la Grange, 3820 parts of ambergris, consist of adipocere 2016 parts, a resinous substance 1167, benzoic acid 425 and coal 212.—(Hooper.)

The same substance was extracted from the rectum of a living woman in Perthshire, England, a description and analysis of which was published by Dr. Ure in a London medical journal in Sept., 1817.

Dr. Gross, in his Elements of Pathology (p. 267), describes a form of intestinal concretions, mostly observed in dyspeptic subjects, as being, "in some instances, of an irregular shape, of the consistence of inspissated tallow, slightly translucent and of a grayish-drab color; in others, they are of a globular form, nearly or quite opaque, of an adipocirous or waxy character, and of a pale yellowish, whitish or cineritious hue."

An interesting case of fatty discharges from the bowels, with the autopsic condition, communicated by Dr. J. B. S. Jackson, of Boston, is related by the same writer, in which was discharged a quantity amounting, "on an average in twenty-four hours, to about eight ounces, during more than four months, * * * * * of a fatty matter in a liquid form, resembling, when cold, yellowish tallow." (Ibid. pp. 269 and 270.)

"There is a case communicated by Dr. Babington, of fat formed in the intestines of a girl, 4½ years of age, and passing off by stool." (Hooper.)

Closely allied to the various substances which have been named, is another of much practical interest, and which is much more frequently met with, namely, cholesterine. This peculiar substance which, Dr. Prout tells us, is the product of some modification of the oleaginous principle, exists in a state of solution in healthy bile; but which, in some morbid conditions of that fluid, being released from its solvent, assumes its proper crystalline form. It then becomes the basis of the ordinary biliary calculus, has a white, sometimes yellow or greenish color, and when broken, presents crystalline plates or striæ, brilliant like mica, and having a soft, greasy feel. It is soluble in pure alkalis, and the solution has all the properties of a soap. It bears a strong resemblance to spermaceti, and, like that substance, melts with the appearance of oil, and is inflammable. "Fourcroy called it adipocere." (Ibid.)

Rutland, June, 1872.

RECOVERY AFTER FOUR YEARS' PARALYSIS FOLLOWING RAILROAD INJURY.

By S. G. Webber, M D., Boston.

In the latter part of July, 1867, the patient was crossing the track of the Eastern R. R. in Chelsea, riding with his sister in a wagon. The wagon was struck by the locomotive of a passing train; Mr. M. was thrown about twenty feet, had several ribs broken and was severely bruised. His sister was less severely injured and shortly recovered.

Dr. Torrey, of Beverly, has kindly given me, from memory, the following account of his condition soon after the accident: "I find on my book that I first saw him in consultation with Drs. Shackford and Forsyth, in Chelsea, near the Caryville Station, where he received his hurts, about ten days or a fortnight before, on the 14th of August, 1867. At that time he was suffering with pain, if I remember rightly, in the lower dorsal and lumbar spine, with loss of mobility and sensation in the parts below, and extinction of voice above a low whisper, although conscious and intelligent apparently. On the 28th of that month he was removed to Beverly, and from that time came under my care. He suffered greatly in the removal, and was for a few days delirious, with great febrile excitement and intense pain in the head, complained of as the delirium subsided. Extreme constipation, relieved only by active cathartics followed by injections, retention of urine requiring the daily use of the catheter, excruciating pain in the right groin, passing thence to the lower dorsal vertebræ, and total inability to move or turn himself in bed, loss of voice, with occasional aberrations of mind, were the principal features of his condition for a long time after he came under my observation. I think it was a month or more before he could move the left leg—it was many months before he could begin to move the right limb in the least degree. Sense of feeling was entirely lost on this side, and had not returned fully up to the time of his leaving Beverly for Boston."

Mr. M. has given me rather fuller particulars in regard to time, &c. He was confined to his bed about a year and a half. He had no pains in his legs; did not recover his voice fully for nine or ten months. During that time he had headaches, mostly occipital; the pain darted down the spine to the lumbar region, but was worse in the occiput. At first, the arms were paralyzed for motion not for sensation, but in about two weeks power of motion gradually returned. He thinks that near the end of the 9th or 10th month he had some fever and was delirious. In 1869, he was carried to the court-house, in regard to a suit for damages, and became unconscious either from the motion or emotion.

Of his subsequent improvement, Dr. Torrey writes thus: "By very slow degrees, he so far improved as to be propped up in bed for an hour or two, supported by a kind of corset bandage. Gradually he became able to pass urine without a catheter, and to get evacuation of the bowels by a cathartic pill with nux vomica incorporated, and without the aid of enemata. In course of time, he was got from his bed to a reclining-chair, which subsequently became his resting-place day and night, and from which he was at last got to his crutches, and then to his basket-carriage or phaeton, for passive out-door exercise, till at last, before starting for the Carney Hospital, he could make short tours about the house and grounds on his crutches with his paralyzed limb trussed up to his belt."

Mr. M. says, in regard to his subsequent progress, that after a year from the injury he began to improve, and at the end of a year and a half got off his bed. At 14–15 months he felt a prickling in the hollow of his back, and both his legs twitched, but he had no prickling in the limbs, and there was no power to move them. Sensation and motion were both lost, and sensation was somewhat diminished in the back. He had retention of urine for nine months.

After a year and a half, he was moved from his bed to a reclining-chair, and the back of this was gradually raised till he could sit nearly upright. His left leg had been improving since a little over a year previous to my first seeing him, when he began to practise with crutches. His right limb continued to twitch, up to the time when I saw him, and he had no control over it, and could move it only slightly at the hip. The left leg had ceased to twitch. Sensation had returned to the left leg and was nearly perfect therein, and had returned somewhat to the right. The pain in the back of the head had been gradually diminishing till he had it only occasionally. If he walked much up or down hill he had the pain in his right side running round to the spine.

I saw him first on July 10th, 1871, at the Carney Hospital. He was then able to walk only as Dr. Torrey mentions, with crutches and with his right leg strapped up; he required help to get up and down stairs. While sitting, he could raise his left thigh, could slowly extend left leg on thigh; flexion was easier; he could flex foot on leg somewhat, but could not abduct nor adduct foot, and could move the toes only a little.

The right leg could not be moved in any direction, except with a swinging motion at the hip, possibly due to motion of the trunk. In regard to sensation, heat and cold could not be distinguished with the right leg, and pinching only when it was hard.

The æsthesiometer showed a difference in the two sides:—

On the front of right thigh, two points were felt as such only at a distance of two inches.

On the left at a distance of 1⅜ inches.

On the right calf at a distance of 2½ inches two points were recognized as only one.

On the left calf at a distance of 1½ inches two points were distinguished as such.

On pressing the points firmly on the right limb, reflex twitchings were caused; tickling the sole of the right foot was not felt and no reflex action was excited.

Pressure of points on the left side caused no twitching; tickling was felt with reflex action.

He had headache only once or twice a week, and for a little while it was severe. Sight was not disturbed. Mental application was slightly wearisome if too long continued.

It was not till a week later, July 17th, that I tested the electro-contractility of the muscles. I was surprised to find that all the muscles of the right leg and thigh acted well under the Faradaic current, perhaps not quite as well as in the normal condition; but the foot was moved in all directions and the leg was extended on the thigh. Sensibility to the current was greatest on the left, but considerable on the right, especially below the knee. On using a very strong current on the right, so as to act on the extensors on the front of the thigh, he had a sensation as of a smart blow in the right side near the lower edge of the ribs.

Without having very great hopes of a complete restoration, and doubtful whether there would be any improvement at all, I told him I thought it worth while to try the effects of a persevering and long-continued use of electricity. As the muscles responded so readily, their nutrition could not be seriously impaired, and I thought it barely possible that the cord might be in a condition to recover its tone and function.

I did not see him again till early in August, at which time he had procured one of Hall's batteries, and by marking on the leg the points at which the electrodes ought to be applied, and on the bundle of rods the distance to which they should be pushed in, it was possible to leave the application of electricity to an attendant.

Sept. 14th, after thirteen or fourteen applications, it is recorded that the leg feels warmer than formerly, and that he feels the electricity more at the upper part of the thigh. The æsthesiometer showed that two points could be felt as such on the middle of the calf internally when 1½ inches distant, externally when 2½ inches distant.

After between twenty and thirty applications, he could move his leg by allowing the foot to rest on the floor and by abduction and adduction giving a lateral motion to the knee. In November, he had more or less neuralgic pain in the cardiac region and under the axilla. I detected, on Nov. 23d, a tenderness over the vertebræ in about the middle dorsal region, and prescribed cod-liver oil, and a blister 1 x 4 inches, over the tender processes. The pain was greatly relieved.

I saw him only at irregular intervals, and find it recorded on January 14th, 1872, that while standing he could flex the thigh on the body, abduct and adduct it, and while adducted and flexed could bend the knee so as to bring the right leg across the left. Trying to bear weight on the leg caused a great amount of trembling. He had again, early in February, neuralgic pains which were relieved by a repetition of blisters over tender dorsal vertebræ.

February 28th, 1872, he could walk without his crutches. He had a headache, which may have been due in part to quinine which I had ordered with iron about a fortnight previously.

March 15th, 1872, I found that he had discarded his crutches, using only a cane, and he could walk very well without that.

July 1st, 1872.—The progress toward recovery has been constant, and the condition of the patient at this date may be considered that of almost complete restoration.

Early in the treatment, the power of motion in the left leg was much improved and that was soon in a condition of almost perfect health.

From the beginning, his leg has been bathed night and morning with warm water and thoroughly rubbed for half an hour, rubbing up.

During this treatment he has once or twice had febrile attacks which he called colds, but which seemed to me to be at least complicated with nervous phenomena, due to the shaken condition of his spinal cord.

As the improvement of his leg rapidly advanced, his mental condition improved very perceptibly. Instead of being cheerful, yet desponding in regard to the final results, and having, with his cheerfulness a settled expression of sadness, he has brightened up and has evidently felt the tonic influence of returning physical health. I have seen this same influence exerted over other patients; and even in a boy 3 years of age suffering from infantile paralysis; the return of power over the limb was followed by marked mental improvement and cheerfulness.

The continuance of electro-muscular contractility after four years at once eliminates injury of the peripheral nerves as the cause of the paralysis. It also showed that the nutrition of the muscles had not been seriously interfered with. Probably, then, the lesion was not at that part of the cord whence the nerves for the legs originate. The intellect was not seriously affected, except at first for a few weeks. It is probable, therefore, that the cause of the paralysis of the right leg was in the cord between the medulla and the lower dorsal region. As the arms speedily recovered and were never entirely paralyzed for sensation, probably the injury was in the dorsal region. The nature of the lesion it is not so easy to determine. After so severe an injury, it would not be surprising to find serious and lasting lesion of the cord. This was not the case. I am more inclined to consider that there was division of nervous fibres in the white substance of the cord and perhaps the grey, that these recovered, or at least enough of them recovered their continuity so that the stimulus of electricity served to complete the restoration of their functional activity.

The question arises of the paralysis being due to a condition of hysteria set up by the shock of the injury. There are many points in which this case resembles hysteria. I cannot assent to this view, however, because that condition is most frequently seen after slight injuries, and this was much too severe, according to the statement of Dr. Torrey, a competent and intelligent observer, who saw the patient from a few days after the accident until he came under my care. Also there had been a slow advance towards recovery, and all the nervous system required seemed to be an appropriate stimulus to lead to the reëstablishment of its normal functions, the actual lesion having probably healed before I saw the patient.

503 *Shawmut Avenue.*

Reports of Medical Societies.

ROXBURY MEDICAL SOCIETY.

ARTHUR H. NICHOLS, M.D., SECRETARY.

January 4th, 1872, Dr. Ira Allen in the chair.

Cephalœmatoma.—Dr. Garceau reported a case of two congenital tumors of the head observed recently upon a child, being of the class known as *cephalœmatoma, tumeur sanguineuse*, or *thrombus neonatorum*, and situated over each of the parietal bones. These tumors of new born infants are usually described as a painless, elastic tumefaction, varying in size from a hazel nut to a kidney, situated most commonly over one of the parietal bones, and rarely over the occipital or frontal bones. It has been noticed that they never extend beyond the limits of a suture or fontanelle. The scalp enveloping them is not discolored, nor can any motion be communicated to them by crying or coughing.

In the course of a few days, a firm bony ring is formed around the margin of the tumor, which can be easily felt when pressure is made with the finger. There is a wide difference of opinion as to the propriety of attempting any surgical interference with these formations. In the present case, the tumors were laid open with a bistoury: their contents, when evacuated, were found to consist of a liquid having the color and consistency of blood, but which however did not coagulate upon being allowed to stand. The contents having been entirely removed, the precaution was taken to apply a steady pressure to the seat of the swellings, inasmuch as they are otherwise apt to re-form within a few hours. With regard to the frequency of cephalæmatoma, Dr. Garceau said that it was of rare occurrence, one case being met with in 500 to 1000 children. He had himself seen five cases in all. In four cases he had operated as above; of these, three made a good recovery, while in one instance the parts suppurated, and death ensued at the end of a fortnight. In the case of one child, it was found impossible to obtain the consent of the parents to an operation; here convulsions appeared, and death took place on the fifteenth day after birth. The most probable cause of this affection, was the pressure applied to the fœtal head during labor by the neck of the uterus. Cephalæmatoma is not to be confounded with vascular tumors, which are sometimes observed upon the scalp. With these there is no bony deposit about the margin, while the scalp situated over them is invariably discolored blue. It is also to be distinguished from *hernia cerebri congenita*, which has its seat over a suture or fontanelle, and never lies directly upon one of the bones of the skull. In this form of tumor, motion is communicated to the swelling, whenever the child coughs or cries, and diminishes somewhat in size when pressure is applied. Moreover the scalp surrounding it is generally thin and destitute of hair.

Dr. Allen said that he had observed one instance of the form of tumor described by Dr. Garceau. The swelling was of unusual magnitude, occupying the entire surface of one of the parietal bones. When seen by him, the child was five days old, and the tumor then seemed to be the seat of considerable pain, a symptom not often observed.

Dr. Edson remarked that he had seen two instances of this affection. There could be no doubt but that cephalæmatoma was composed of effused or extravasated blood and serum, occupying a circumscribed cavity beneath the pericranium.

Dr. Arnold stated that he had observed four instances of this form of tumor. The first was seen several years ago, the swelling occupying the frontal bone, and projecting over the face in a manner suggestive of the so-called *caput succedaneum*. To relieve the head symptoms from which the child suffered, he laid open the tumor, and made an application of tannin to arrest the hæmorrhage which was profuse. Death ensued within a few days.

Another case had come under his observation some four months ago, where, as in the case reported by Dr. Garceau, two tumors occurred, one over each of the parietal bones. One of these tumors was treated by incision and the application of bandages, while the other was left to itself. The result was that the tumor operated upon disappeared at once, while the other was absorbed spontaneously, in the course of five or six months.

Dr. Goss said that some of the best authorities, such for instance as Vogel and Fürth, opposed interfering in any way with these tumors. If they were laid open, the periosteum was exposed to the air, which was likely to induce an inflammatory process. When left to themselves and not subjected to either incisions, cauterizations or pressure, they were usually found to disappear by absorption within six months at the farthest. If however suppuration should take place, then of course the swelling should be treated like an ordinary abscess.

Monsters.—Dr. Edson exhibited an acephalous fœtus, thought to be of about seven months' growth, and gave a full history of the case.

The mother was first seen by him on the 2d inst. The amniotic fluid was reported to have escaped while the woman was turning on her side, about 11 o'clock the previous evening. The os appeared upon examination to correspond to that of a woman seven months advanced. The *os tincæ* was not open, nor had there been any labor pains. Labor began about 6, P.M. on the 3d inst., 48 hours after the flow of the amniotic fluid. Owing to the abnormal formation of the fœtus, no small difficulty was experienced in determining the presentation.

With regard to the predisposing cause of this abnormal development, it was ascertained that some time during the previous August, the woman had been subjected to a sudden fright, having barely escaped being run over while crossing the street.

The relation of this case by Dr. Edson, called out the experience of others regarding monsters and monstrosities.

Dr. E. G. Morse had seen a fœtus, the face of which exhibited no distinguishable features whatever. The head resembled in most respects that of a full grown fœtus, but the eyes, nose and mouth were all buried in one continuous mass of œdematous tissue.

Dr. Arnold had delivered a monster born after a pregnancy of 10½ months; the quantity of amniotic fluid passed being enormous. The cranium was entirely absent. The skin appeared to be well formed over the entire body except upon a small spot over the lower cervical vertebræ. Here, however, was an opening communicating with the spinal cord, a portion of which projected upon the back, resembling a small pear. He was convinced by the history of this and other cases that had come under his observation, that the abnormal development of the fœtus could be traced in a large proportion of cases, to some sudden fright or mental emotion.

Dr. Garceau supported this view by the recital of a remarkable case which occurred in his own practice, in which a woman having been frightened during the early months of pregnancy, by coming unexpectedly upon a goose, the child was born with the arms fastened behind the back, very like the mode of attachment of the wings of a goose. This deformity had been in a measure overcome by prolonged treatment, but even now the hands could not be perfectly approximated in front.

Dr. Allen reported the details of a case seen by him in which a pregnant woman had been greatly frightened by an intoxicated husband, who seized upon one of his children, and threatened to cut out his tongue. The mother was delivered of a child having a cleft palate *and no tongue.* Dr. Allen was able to recall still another instance in which a woman, while on the deck of a sailing vessel en route from Queenstown to Boston, was greatly frightened on one occasion by the sudden appearance overhead of a large sea-bird. At full term she was delivered of a monstrosity having *web-feet,* which bore a striking resemblance of those of a loon.

Medical and Surgical Journal.

Boston: Thursday, July 18, 1872.

"CHLOROFORM-PHOBIA" AT LYONS.

Deaths from chloroform have been so numerous that a new case seems to attract as little notice as that of a suicide in a newspaper. Even the *British Medical Journal* appears to have relaxed its former alacrity in reporting such cases, and taken up instead the fatal results of chloral. The *London Medical Times & Gazette,* an uncompromising advocate of the deadly agent, cannot conceive of the disuse, anywhere or at any time of chloroform, solely in the interests of the patient, as is evident in the following extract from its issue of June 22d, last:

"The narrative of a case in which death occurred while under the influence of chloroform gave rise to a discussion at the Lyons Society of Medicine upon the subject of the dangers of chloroform and the innocuity of ether. Lyons, as is well known, is the only place in Europe in which the inhalation of ether is still preferred and largely practised. Why it should be so it would be difficult to conjecture, there not being there the same historical and national reason which has led to the same preference being still maintained in Boston, U. S."

"Difficult to conjecture" is it, why the Lyonnese prefer a perfectly safe and sure agent to a treacherous and often terrifically sudden fatal one! Let the Editor of the *Times* have one or two such horrifying cases among his valued and influential friends, an experience which some of us have witnessed, and the "difficulty" would vanish at once and forever. He would taunt no more the opponents of unsafe agents with "Lyonnese chloroform-phobia." In Boston the use of chloroform as an anæsthetic has been abandoned simply because it is not safe, and a physician has *no right whatever* to put his patient's life in *unnecessary* danger. "A death from chloroform," says Bennett, "is one of the most dreadful things that can occur." We do not believe, and we have some knowledge of the profession here, that there has ever been a single administration of ether, or a single rejection of chloroform in Boston for a "historical and national reason," as the *Times and Gazette* ungraciously intimates. It is because, as M. Pétrequin says, "chloroform is mortal in itself, and is alone to be blamed"—because this attribute is inherent in the agent, and is beyond the reach of preventive measures of every kind, that its employment is so much objected to, here and at Lyons. The *Times and Gazette* was greatly shocked, not long ago, that the charge of manslaughter was brought against a practitioner in Yokohama for giving chloroform with fatal effect in a case of simple dislocation of the shoulder; and called it "monstrous that a Medical Practitioner should be put upon his trial because he is the subject of an accident." Here, however, the feeling in the profession is so strong against the wickedness of its use that one guilty of such an "accident" would hardly escape conviction in the civil courts; and why should he, since there is at hand a perfectly safe and effective agent in ether—which never fails, and *never kills*. It has not, it is true, always preserved life when given to the dying; but, we repeat, it has *never killed*, never as chloroform has killed in hundreds of cases where the individual was "in rude health" and in good condition to receive it, as in the shoulder case just alluded to, in which the death was undeniably due to chloroform alone. This cannot be too often or too strongly insisted upon. Ten years ago a Committee of eminent physicians of Boston, having "unequalled facilities," most thoroughly examined into all the cases they could find throughout the world; and reported that "there is no recorded case of death, known to the committee, attributed to sulphuric ether, which cannot be explained on some other ground equally plausible. * * * * * * This cannot be said of chloroform."*

Since the Report of this Committee no case has been published in disparagement of ether of any more weight than those they reported on. In fact "not a single conclusive case of death from the proper inhalation of pure sulphuric ether" has yet occurred. We say this for the benefit of the "somewhat diffident" M. Marduel, who, we hope, will review his cases before he again deals in "discordant notes" or sweeping remarks, without offering the semblance of justification.

We give a few extracts of the Report of the discussion, to show the spirit which pervaded the meeting at Lyons:

M. Desgranges observed that with chloroform, even in a state of purity, and in the most skilful hands, there was no security from danger; and the Paris Surgeons operate before complete anæsthesia is established, arousing the patient as soon as possible afterwards. Ether suffices for all operations; and no patients are refractory to it, provided ether at 85° is used—which, indeed, is not obtainable at Paris.

M. Diday cautioned the Society not to remain under any illusions on the subject, for, in spite of the goodness of the cause, ether will not triumph until the law or the legislature intervenes and snatches chloroform from the hands of the surgeon.

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* Trans. Boston Soc. Med. Improvement, vol. iv. p. 216.—1862.

M. Pétrequin declared that the Society possessed an authority which it ought to bring to bear on this question, and it must not believe that its prior efforts have been useless. The fatal results from chloroform have in turn been attributed to impurity, want of skill, or the dose employed; and all without reason. "Chloroform is mortal in itself, and it alone is to be blamed." No preventive measures offer any security; and sometimes the operation put into force to meet these accidents is more formidable—tracheotomy—(for the most part uselessly performed) than that for which the chloroform was resorted to.

M. Marduel felt somewhat diffident in uttering a discordant note amidst this harmonious pæan in favor of ether; but he could not forbear calling to mind that at Lyons as well as at Boston there had been several deaths from ether. He would not say that chloroform is an innocent agent, and does not want more *surveillance* and precautions than ether.

M. Delore, although he has had pretty extensive practice with chloroform, prefers ether because he is then less preoccupied with the anæsthesia. The deaths that have been recorded as resulting from ether in no wise resemble those from chloroform. They are not so sudden (foudroyants), and a certain number of them should be attributed to hæmorrhage, epilepsy, &c.

M. Verzu observed that one advantage of ether was that once pure it remained pure; while chloroform, however pure, and whatever care be taken, undergoes chemical change.

DRESSING OF WOUNDS BY OCCLUSION INAMOVIBLE.—M. Ollier, of Lyons, proposes a modification of M. Alphonse Guérin's dressing, the *pansement ouaté*, so called, or complete occlusion of the wound by means of cotton, a description of which was given in the JOURNAL for April 11th ult. Recognizing the necessity of complete immobility for speedy healing of wounds as well as for calming pain, limiting suppuration and preventing subcutaneous detachments, Ollier covers the limb, including the cotton dressing, with a layer of silicate of potash, which, drying, becomes a stiff envelope. This casing is perforated at various points, so as to allow evaporation of the moisture from the skin. In order that the purposes of the silicate dressing may be advantageously realized, the affected limb should be entirely encased, so that perfect immobility may be attained. One of the results which M. Ollier has experienced from his method has been the great diminution, often complete absence, of suppuration.

THE MILLER PRIZE.—The Berkshire District Medical Society held its regular monthly meeting at Sheffield, on June 26th, and was very handsomely entertained by Dr. J. Leland Miller. Dr. Miller explained, in reference to the prize of $100 offered by him to members of the Massachusetts Medical Society for the best essay on "Accidental Poisoning," that he wishes the subject considered in its broadest application, and with special reference to those obscure poisons which endanger life or impair health through the medium of food, water or air, or by unsuspected contact. Such is often the case with lead, arsenic, copper and other minerals, besides a long catalogue of plants, many of which are not yet generally known to be poisonous, and are not therefore shunned. Add to these certain noxious gases, and we have a formidable array of foes, whose insidiousness constitutes their chief danger. Dr. Miller wishes to elicit an essay which shall be more than ordinarily minute in describing these occult poisons, and in laying down practical rules for detecting and avoiding them and for applying the most effective antidotes.

Our Hospitals.

MASSACHUSETTS GENERAL HOSPITAL.

Five Cases of Paracentesis Thoracis. [Service of Dr. Minot.]

I.—On April 10th, 1872, W. R., an English machinist, 29 years of age, was admitted to the Hospital. He had possessed good health until a week previous, when he was taken with chills and pain in the left side. He suffered considerably from dyspnœa, had some fever, sweating and vertigo. Pulse was 120, hard, tense and wiry. He was obliged to lie on his left side. Has had no cough or expectoration.

Physical examination, made the following day, showed the heart-sounds were loudest just to the right of the median line, where also dulness began. Percussion was flat all over the back on the left side and in front to three inches below the left nipple. There was bronchial respiration below the spine of the scapula and throughout the lateral region. Above the spine of the scapula, the respiration was faintly heard, and was absent at the extreme lower part of the back. Below the clavicle, respiration was tubular. Pulse was 128. Temperature 103¾° F. The left side of the chest, by measurement, was 1¼ inches larger than the right. Dover's powder was ordered at night, and on the fourth day after admission to the hospital, paracentesis was performed. About three pints of reddish-yellow serum was withdrawn, by means of Drs. Wyman's and Bowditch's syringe. The fluid coagulated into a jelly-like clot.

Almost immediately there was good percussion and respiration as low as the angle of the scapula, and friction sounds were heard in the lateral and axillary regions. Pulse was 120. The following day, friction sounds and "*bruit de cuir neuf*" were audible in the lower part of the back, and in front there was a respiratory murmur, with sibilant râles. Percussion in front was unchanged, but in the back, though dull, it was not excessively so. Under the use of ale, cod-liver oil and a generous diet, the patient continued to improve in spite of the outbreak of occasional hectic symptoms, and was finally discharged after a six weeks' residence in the hospital in a greatly improved condition, the apex-beat of the heart being now in its normal position below the fifth rib, and the respiration being good in the upper part of the lung, though some dulness and defective respiratory action remained in the lower dorsal region.

II.—On April 30th, M. C., a nurse, native of Ireland, 20 years of age, was entered on the record. She was quite well up to a fortnight previously, when she was seized with a chill, fever, pain in the right side and shoulder, which lasted two days. Coughed somewhat, with some frothy sputa. Pulse 100. The following day, a physical examination was made. Percussion was flat over the whole of the back on the right side, with faint bronchial respiration. Voice, a mere whispering echo. In front, also, percussion was flat, even to the apex. The displacement of the heart was slight, the impulse being a trifle too high. The next day, the third of her stay in the hospital, paracentesis was performed, and a quart of clear, yellowish serum withdrawn from the right pleural cavity. The day after, percussion was improved in front, and she was more comfortable. The second day after the operation, a faint respiration returned in the upper half of the right lung, with plenty of friction sounds below the angle of the scapula on full inspiration. Three weeks afterwards, respiration was quite audible in the back, though some dulness still remained on percussion. The pulse was reduced to 88 beats per minute, and the general condition was much improved. She was advised to use tinct. ferri perchlorid. (gtt. xv.) for some time to come, and discharged May 25th, having remained about a month in the hospital.

III.—On April 20th, T. C., a coachman, born in Ireland, 33 years of age, entered the hospital. Eighteen years previously, he suffered from hæmoptysis, and during the year or two preceding the present illness, he had experienced various coughs and colds, and even at one time had "lung fever." Three weeks previous to admission, he had an attack of chills, fever and sweating, with pain in the left side, which rapidly became severe. He had some cough and a slight dyspnœa, which afterwards increased so much as to be his chief trouble. The pulse was 100, and the decubitus on the left side. Two days afterwards, paracentesis was performed, and two quarts of clear yellow serum withdrawn. The percussion, which had been flat throughout, improved directly as low as the fourth rib in front, and to midway between the spine and the angle of the scapula behind. Respiration, also, became good to the same level, accompanied by a few subcrepitant râles. More especially, the dyspnœa was relieved, and the patient was up and about soon after the operation.

A day or two after, he was put upon the chloride of iron, as in the preceding case, and discharged.

IV.—March 18th, J. D., a tailor by trade, and native of this city, entered the hospital. Born of healthy parents, and in fair condition of life, he enjoyed good health until about two weeks previously to admission, when he contracted a cough, lost his strength and appetite and grew constantly worse. Pulse, 100. Temperature, 104° F.

Inspection of the chest showed marked lack of action of left side. There was excessive flatness all over the chest, on the left side, in front and behind, and absence of respiration gave a very obscure sound, apparently from friction, most marked over the spine of the scapula. The maximum of cardiac sounds was to the right of the sternum at the fourth interspace.

He was put upon a diuretic treatment, (℞. Potass. iod. grs. iij. t. d. ℞. Potass. bitart. grs. xv. nocte), which was continued for about a week, when, as none of the physical symptoms were abated, paracentesis was performed on the eighth day after his entrance into the hospital. Three pints of clear yellowish serum was withdrawn to the almost immediate relief of the patient, who was enabled to sleep upon the right side, which he had not done before. The pulse was 120. The day following the operation the pulse rose to 130. There were friction sounds below the angle of the scapula, and the "leather" sound was audible in the axilla and under the clavicle. The sounds and impulse of the heart had returned to the normal position.

Five days after operating, though the dulness was about the same as before puncture and no respiration could be heard with the naked ear on the left side, still with the double stethoscope a respiratory murmer was audible over the front of the chest and behind, between the spine and the edge of the scapula. In the lateral region respiration was absent. Below the spine of the scapula was a crumple on inspiration. Vocal resonance fair, though not equal to that of the right side. Vocal fremitus very good on the back. There was an improved movement of the left shoulder on inspiration, though still it was not to be compared with that of the right. The impulse of the heart was strongest below and to the left of the ensiform cartilage. Its sounds were loudest over the sternum about opposite the fourth rib. There was free diuresis, and the bowels were kept open with rhubarb. (Pil. rhei comp. grs. x.) Pulse still remained at 120.

Eight days after puncture, the respiration was quite audible, though soft and faint, throughout the back. No friction sounds were heard. Percussion was tolerably good in front of the chest, and during inspiration the heart was felt to the left of the sternum. A week later he was discharged from the hospital after a stay of nearly three weeks, his condition being very much improved.

V.—Admitted, April 1st, G. F. S., a teamster, who had been under treatment in the surgical wards for frequent micturition. Now passed urine nearly every hour. Three weeks ago, after exposure, was seized with chilliness, sharp pain in left side, dry hacking cough with but little expectoration. Suffered from dyspnœa, and could not lie down long at a time. Decubitus was always left. Pulse, 96. The left side of the chest was perfectly flat on percussion, and on inspection it appeared slightly fuller to the eye. The impulse of the heart was felt just below the xiphoid cartilage. Respiration was faint and bronchial in front, and absent on the left side. Over the back, especially the lower three quarters, percussion was very flat, and respiration absent, except near the spine, where its character was bronchial. The left side of the chest measured ¾ inch more than the right. On the fourth day after his entrance, paracentesis was performed, and 2½ quarts of clear yellow serum were withdrawn. After operating, percussion was quite resonant over the back and tolerably good in front. Faint respiration was audible throughout the upper half of the lung. The excess of measurement of the left over the right side of the chest, was reduced to ¼ inch.

Two days afterwards, there was dulness in front of the chest, above the third rib, and flatness below, but respiration though faint was perfectly audible throughout the front. In the back there was dulness and no respiration in the lower fourth, but considerable murmur above the spine of the scapula. The impulse of the heart was still below the xiphoid cartilage. Three weeks later respiration was still faint. Counter-irritation was advised, using ethereal tinct. iodine, and six weeks after entering the ward he was discharged much relieved.

A case of Diabetes and Chronic Nephritis.—[Service of Dr. Abbot.]

On May 29th, 1872, A. S., 20 years of age, born in Eastham, entered the Hospital. Her parents were healthy, and the patient was well and strong herself until within a few years. Her work was light, and she had good food and good hygienic surroundings. The catamenia, always irregular in their periods, ceased altogether three years ago. About the same time her urine increased in quantity, a condition which has continued since. To this increase was added great weakness and pain in the back. There was considerable thirst, but her appetite was good and digestion easy. Her countenance was ruddy, and she had the look of perfect health. She would sleep well, were it not for the necessity of rising several times during the night to void her urine. The skin was natural, the pulse 114, the temperature 48° F. Her urine was very pale and nearly odorless, acid in reaction and of sp. gr. 1042. No albumen was found at this examination. No microscopical examination was made at this time. Sugar, however, was found to be present in large quantity. The amount of urine passed in the first 24 hours after entering the ward was 2 3-4 quarts.

Her right eye was totally blinded by a cataract which came on last summer. No *bruit de diable*, nor any anæmic murmur of the heart could be detected. She was ordered two grains of pyrophosphate of iron at meals and put upon diabetic diet, to wit: eggs for breakfast, bran bread and one soda biscuit at each meal. Beef or mutton with dandelion or spinach for dinner.

The following day, albumen was found to be present in the urine.

The third day after admission she had a good deal of dyspnœa, with stupor and restlessness, which increased at nightfall. No abnormal signs were detected in the front of the chest or heart. Her urine was withdrawn by the catheter. It was turbid, but normal in color and odor. Sp. gr. 1021. Reaction decidedly acid. Urea almost wanting. Albumen present. Under the microscope were seen epithelial cells from the pelvis of the kidney, sugar-spores, fungus, and *an abundance of granular, and some hyaline, casts.*

Some sugar was still present, but by no means its previous percentage. The amount of urine for the 24 hours before death was 1 1-4 pint.

She was ordered a stimulating treatment,
(℞. Spt. ammon. arom. ʒss.
Aq. ℥ij. M. S. quâque horâ),
a sinapism to the chest and a turpentine enema, but she did not rally, and died at ten o'clock the next morning, having been five days in the hospital.

Autopsy by Dr. Fitz.

There was found fatty degeneration of the kidneys, and ulcerations of the bladder. The other organs presented nothing abnormal to the naked eye. A careful examination of the brain was made with negative results.

[This case is specially interesting from the rarity of the co-existence of diabetes and chronic nephritis. It is evident that the large amount of urine passed under the influence of the former condition masked the albumen, which was readily detected when the quantity of urine was diminished by the withdrawal of sugar-producing food. The symptoms the day before her death had much of the character of hysteria. She was pale and breathed with difficulty and frequent groans; the extremities were cold. On being partially roused from her stupor she laid her hand on her front chest as the seat of pain, but no abnormal physical signs could be detected at the spot. She also intimated, in reply to questions, that she had had similar attacks before. There was no urinous odor in her breath. A.]

Dilatation of Heart, with adherent Pericardium. — [Service of Dr. Abbot.]

April 25th, A. H., a mason by trade, native of the State of Maine, 60 years of age, entered the Hospital. Eighteen years ago he had typhoid fever, which was followed by some swelling of the feet and legs. Thinks his heart beat irregularly as long as 12 years ago. Has had dyspnœa and occasional palpitation for some years back. Last December had some lung difficulty, apparently of bronchitic nature. Since that time has done no work, because of the swelling of his legs which followed his cough. Appetite and digestion were pretty good, bowels regular, pulse 100. The cardiac dulness began at the fourth intercostal space and extended obliquely downward to an inch and a half outside of the left nipple. The action of the heart was remarkably feeble and irregular in force and rhythm; no abnormal sound could be detected.

He was put upon tonic treatment (syrup of the phosphates iron, quinine, strychnine fʒss. S. t. d.) and afterwards broom tea was added (scoparii decoct. ℥vi, S. quotidie), but as this did not produce the desired diuresis, and as the dyspnœa during the third week of his stay in the hospital became aggravated, resort was had to digitalis. (℞ Digitalis gr. ss. Scillæ gr. Potass. nitr. gr. ij. M. ft. pil. S. t. d.) The next night he had a comfortable rest, and his pulse dropped to 90°. This effect could be sustained, however, only by increasing somewhat the dose of digitalis.

During the fourth week, the abdominal parietes became prominent and œdematous, but the ascites was not excessive. Below the right hypochondrium to a line 1 1-2 inches above the umbilicus, and extending a little beyond the median line, percussion was dull; over right side of the back, particularly at the base, the resonance was deficient, though the respiratory sound was distinctly heard. He was ordered the Pulv. Jalap. Comp., which produced very free evacuations, and temporary relief. During the fifth week, the scrotum and prepuce became very œdematous, causing much pain and discomfort. The patient's strength began to fail rapidly, so that the digitalis had to be abandoned for stimulants, which were given freely, and at night spts. juniper ℥ss., as much as he could take with comfort. Death occurred May 26th.

Autopsy by Dr. Fitz. Heart dilated, its volume increased at least one half, the muscular walls thin in comparison with the size of the cavities, of a reddish yellow color, very friable, fatty degenerated, pericardium universally adherent. Valves healthy. About two quarts of serum in right pleural cavity and one quart in the left.

[Nothing abnormal was noticed in the liver, which was pushed down by the thoracic effusion, so as to be felt far below its usual position, as noticed a few days before death. The feebleness and irregularity of the heart's action in this case were quite unusual, and were supposed to be due, at least in part, to general pericardial adhesion, which was found after death. A.]

BOSTON CITY HOSPITAL.

I.—*Abdominal Tumor. Removal. Death.* [Service of Dr. Homans.] The patient, a woman, 40 years old, stated, on her admission to hospital, that the tumor, for which she desired treatment, first appeared three years before, in the iliac region. Its growth was gradual, but progressive, until within two months, when its increase in size was rapid. There was but little pain, although there had been within the last year some degree of "soreness" at intervals. The patient had been confined to her bed during the two months previous to her admission. During that interval, there was dyspnœa, loss of appetite, constipation, œdema of the feet and legs.

At the time of entrance, the girth of the patient at the level of the umbilicus was fifty-two inches. Within the walls of the abdomen a tumor could be felt, firm and without tenderness. There was albuminuria, with hyaline casts.

The operation for the removal of the growth was as follows. Under ether, an incision was made in the median line of the abdomen, extending four inches downward from the umbilicus. The tumor having been exposed, it was found to be nearly solid, no fluid following the introduction of a trochar. The size of the growth and its consistence necessitated the extension of the incision to twelve inches. The attachment was found to be to the fundus uteri. Adhesions to the abdominal parietes and to the ascending colon, some of them very firm, were broken down with the finger or divided with the knife. The broad attachment to the uterus was severed, and the mass was removed.

Hæmorrhage during the operation was inconsiderable, a number of small arteries being tied as they were cut. The edges of the wound were apposed, silver-wire sutures were passed and a compress and bandage were firmly applied over the incision.

The tumor was fibro-cystic. One large cyst was found, containing a pale yellow fluid. The weight of the mass was thirty-one pounds.

During the six hours just after the operation, the patient was in all respects comfortable. Then nausea and vomiting supervened, the abdomen became distended, the skin was hot and dry, the pulse rapid. Remedies failed to prevent the collapse, and the patient died the day following the operation.

There was no autopsy.

II.—*Syphilis, with Extensive Degeneration Discovered Post Mortem.* [Service of Dr. Homans.] G. F., a colored laborer, aged 23, entered the hospital, during the service of Dr. Thorndike, for treatment for caries of the skull. He confessed a syphilitic history, having had the primary lesions six years before. At the time of his admission, there was an abscess over the junction of the sagittal and coronal sutures, which was discharging thin pus. It had been opened two months before. A fistulous opening into this abscess communicated with a carious surface of bone an inch or more square. After six days of general supporting treatment, the sinus was opened freely and three pieces of loose, necrosed bone, each about the size of a split bean, were removed. Three weeks later, more denuded bone was discovered at the edge of the former disease, but the wound in the scalp gradually granulated and healed. In the beginning of the second month of treatment, a large, cold abscess over the biceps of the arm was opened. A month later the right pleural cavity was found, on auscultation, to be filled with fluid, giving rise to harassing cough and sleeplessness from dyspnœa. The pulse continued above 100, and the appetite was greatly impaired. After a month, there was manifest improvement, and the patient was convalescent, so that he walked about the ward. Soon, there followed extreme debility and diarrhœa; the pulse rose to 136. There was progressive sinking, and at the end of four months from the date of his entrance to hospital, the patient died.

At the autopsy, the following appearances were observed:—In the skull, to the left of the median line and a little anterior to the vertex was an opening, about one inch long by three-fourths of an inch wide, through which the dura mater could be seen. The dura mater was thickened and slightly adherent to the pia mater, and the longitudinal sinus was somewhat constricted by this thickening.

The tenth rib, near its sternal extremity, was enlarged and necrosed, and in the adjacent tissue there was a deposit of cheesy material, of about the size of a pigeon's egg. The articulating surface of the head of the humerus was necrosed, and there was, also, extensive necrosis of the glenoid cavity and of the acromion of the scapula.

Both lungs were adherent to the thoracic walls, and in each pleural cavity there was a considerable quantity of serum. Each lung showed scattered deposits of miliary tubercle. Some of the bronchial glands had undergone caseous degeneration.

The pericardium was adherent in all its extent, and, with the deposit of false membrane and lymph, its thickness measured from one quarter to one half an inch. The muscular structure of the heart was thin. The valves were normal.

The thyroid and thymus glands were hypertrophied; each lobe of the latter was an inch and three-quarters long, and showed cheesy degeneration.

The liver presented two large masses of caseous metamorphosis in its outer segment and two of smaller size internally. Small puckered spots on the surface indicated cicatrices of former disease.

The spleen contained a great number of large and small, deep and superficial spots of caseous degeneration. Both kidneys showed appearances of commencing parenchymatous disease. The mesenteric glands were enlarged. In the small intestine there were several small ulcerations, and near the cœcum an ulcer of larger size. The solitary glands in the immediate vicinity of these ulcerations contained cheesy deposits.

Compound, Comminuted Fracture of Metatarsus. Amputation. Death.—[Service of Dr. Ingalls.] The patient, a man about 44 years of age, and addicted to the excessive use of alcoholic stimulants, fell while attempting to get on board a train of cars which was in motion, and a wheel passed over the right foot, causing a compound, comminuted fracture of all the metatarsal bones except that of the little toe. The tarso-metatarsal articulation was laid bare, and there was considerable laceration and contusion of the soft tissues. The finger could be passed under the skin from the dorsum down to the sole of the foot and on each side back to the ankle. The hæmorrhage had been trifling.

The patient was etherized, and amputation was performed in the lower third of the leg. Cotton wool was placed between the flaps, and after they were approximated the lower portion of the leg was enveloped in the same substance, a light, loose bandage being applied over the whole. The patient recovered well from the shock of the operation.

Six days after the operation, the flaps began to assume a sloughy appearance, and two days subsequently the patient had a chill, followed by nausea and vomiting, with a pulse at 116. Quinine and stimulants were given. He continued to have chills almost daily, and complained of constant nausea and vomiting. The sloughing of the stump continued to increase. The patient gradually lost strength, and died thirteen days after the injury.

Three Cases of Sunstroke. Recovery.—[Service of Dr. Edes.]

I.—The patient, a young man 21 years of age, while exposed to the sun, on July 1st, suddenly became unconscious. He was immediately taken to the hospital, and when he arrived there was in a condition of active delirium. There was intense congestion of the face; the pupils were normal in size, but not influenced by light; the skin was of a burning heat; respiration was hurried and labored; pulse 120, full and bounding.

The surface of the body was sponged with water; ice-bags were applied to the head; leeches to the temples; wet cups to the back of the neck, and sinapisms to the feet. One drop of croton oil was also administered. The patient was catheterized, and nearly a pint of urine was drawn off. Two hours after entrance he became conscious, but complained of dizziness and pain in the head. He slept nearly all night, however, and in the morning had recovered, with the exception of a slight headache. The patient remained in the hospital three days, when he was discharged, well.

II.—A second case of insolation was admitted to the hospital on the same day, presenting symptoms different from those of the previous case in many particulars. The patient was a laborer, 40 years of age, who, after working all day in an exposed situation, became comatose. His breathing was stertorous, pupils very much contracted, face flushed, and pulse 164. The treatment consisted in the application of ice-bags to the head, with local bleeding by means of leeches to the temples and by cups to the nape of the neck. Enemata of carbonate of ammonia and brandy were given. The surface of the body was frequently sponged with alcohol and water in equal parts. Three hours after the commencement of the treatment, the condition of the patient had much improved. His breathing was easier, and a slight degree of sensibility had returned to the extremities. Pulse 100. There were, however, spasmodic movements of the feet and hands, with constant moaning, as if from pain. Although there was some difficulty in swallowing, forty grains of bromide of potassium and one-eighth of a grain of sulphate of morphia were administered by the mouth. The patient passed a comparatively quiet night, and in the morning he was perfectly rational, although he talked slowly and somewhat indistinctly, and complained some of dizziness. On the third day after admission there was a slight diarrhœa, which was relieved by laudanum and starch injections. His condition gradually improved, and now, although in the hospital, he is nearly well enough to be discharged.

III.—The third case presents a few points of interest, although it was not treated at the hospital from the outset. In this instance the patient, a young man, walked from his residence to his place of business, a distance of nearly four miles, a portion of the way across a long bridge, during the hottest part of the day on July 1st. On arriving at his store, he went into the cellar and immediately fell asleep. He was aroused after he had slept nearly two hours, and he commenced to attend to his customary duties; but he soon had a convulsion which, after a short interval, was followed by another. A physician was called, who administered ether, which diminished the violence of the convulsions. His pupils at this time were very much contracted, skin livid, lips blue, and head intensely hot. Pulse 150, full and strong. Ice-bags were now applied to the head, and a leech to the temple. During the following half-hour, the frequency of the pulse had much diminished, and the patient had become conscious, recognizing those about him. He soon sank into a sound and quiet sleep, in which condition he continued until the evening, when he was sent to the hospital. The excitement of the removal threw him into another convulsion, which was, however, subdued by the administration of ether. The following morning, he appeared perfectly well, but was kept under observation at the hospital for a day or two and then discharged.

The Smallpox Department of the City Hospital, located on Albany Street, had, originally, accommodations for only twelve patients, and all those treated there were required to pay fifteen dollars per week for medical attendance, board and nursing. All those unable to pay this amount were sent to Quarantine Hospital at Gallup's Island if they could be moved without endangering life.

Up to November, 1871, the accommodations were sufficient for all paying patients and for those unable to be removed, as there had been up to that time during the year only occasional cases of variola in the city, many of these being recently arrived emigrants who had received the contagion on shipboard during their ocean passage. The disease was quite prevalent in Lowell during the summer, and many became infected from that source.

Nothing like an epidemic existed prior to November last, when the disease sprang up in certain localities of the city, mostly confined to Cabot street, at the Highlands, and Athens, Bolton and Silver streets, South Boston. The numbers increased so rapidly, and the weather became so unfavorable for the removal of patients to the "Island," that the Trustees were authorized to keep non-paying patients at the hospital. Under this new system, every bed was soon filled, and the only resource left was an old building in the same yard, formerly occupied as a Cholera Hospital; this was partially fitted up and opened for the reception of patients.

Since that time about four hundred cases have been admitted, the largest number at any one time being fifty-one. The Smallpox Hospital has been used for the severe forms of the disease, while the Cholera Hospital has been occupied by convalescents and by those having the very mildest forms of the disease. At the close of the year ending May 1st ult., the mortality rate was nine per cent. Since that time the type of the disease has been much severer. The hot weather and over-crowded wards have contributed to increase the death-rate to something over twelve per cent. Some of these cases were not inmates of the hospital more than twenty-four hours, as they were moribund on admission; others were in the advanced stages of phthisis before contracting the disease. These allowances would reduce the deaths from uncomplicated smallpox to a much less per cent. It is to be noted, also, that quite a number of the milder cases were transferred. The general plan of treatment has been nourishing, with tonics and stimulants when required. Morphia was administered freely during the secondary fever. During the primary stages, little or no medicine has been given, except mild cathartics, with Dover's powder or hydrate of chloral to produce sleep.

In the hæmorrhagic forms, tinct. ferri chloridi, quinine, tannic acid and ergot have been used early. To relieve the high temperature, quinine in large doses, and frequent sponging have been resorted to, and, in cases of children, a tepid bath, gradually reducing the temperature of the water and with it that of the patient. There have been no bathing facilities to try the effect of this treatment on adults, but it has produced a favorable effect on children. Quinine, however, has been considered the sheet-anchor to reduce temperature, in large and frequently repeated doses. However large the dose may have been, patients have not complained of any disagreeable feelings from its use. Patients thoroughly under the influence of quinine, except in cases of delirium tremens, have been very seldom delirious. Xylol has been faithfully tried, but almost invariably it produced such an irritable condition of the stomach that the agent was discontinued; and in those cases in which it has been used throughout, it has shown no superiority over other remedies. Bisulphite of soda has also been used, and discontinued for the same reason as the xylol.

For local application, sulphuret of lime has been used extensively, and patients are sponged with it two or three times daily; it cools the surface and relieves all itching, and patients frequently call for it, although the odor is rather unpleasant. When desquamation has commenced, the following application is made two or three times daily:—

℞. Acidi carbol. crys., ʒij.;
Glycerinæ,
Ol. olivæ, āā ℥ij. M.

This softens and relieves all tension of the skin, and the crusts are allowed to fall off without any desire on the part of the patient to aid the process by scratching.

After the crusts have fallen off, the patients are allowed to bathe their faces frequently with some alkaline lotion, generally of sodæ bicarb. Not more than five or six patients during the present epidemic have been badly marked.

UNITED STATES MARINE HOSPITAL, CHELSEA, MASS.

Dr. A. B. Bancroft, Surgeon in charge.

This institution is for the relief of the sick and disabled seamen in our merchant service, and is under the supervision of the Treasury Department at Washington. The hospital is situated on a high hill overlooking the city of Chelsea, and having a fine view of Boston harbor. The building, which is of brick, and of an imposing external appearance, is well adapted for its purposes, although the addition, internally, of some of the modern improvements would contribute to the comfort of the inmates. About 130 patients can be accommodated here, although at the present time there are only fifty.

In the winter, however, the hospital is nearly always full. Good ventilation, from the high and exposed site of the building, is easily maintained, and erysipelas and other diseases consequent upon impure air are of very infrequent occurrence.

Malarial fevers and other diseases incident to warm climates, phthisis, rheumatism, acute and chronic, Bright's disease, typhoid fever and syphilis, are the principal diseases that are here represented. Sailors seem particularly disposed to Bright's disease, perhaps from the fact that the sudden exposure to cold and dampness, which the nature of their occupation requires, may, by suddenly checking the secretion from the skin, throw extra work upon the kidneys, and in persons debilitated by excesses both in eating and drinking while on shore, may be the exciting cause of the disease. The acute form is not as frequently seen here, as the chronic. The line of treatment in the acute form, has been jalap and cream of tartar powders when there was much œdema and the urine was scanty, Tincture of digitalis and some of the milder diuretics have been used with advantage in some cases. If the uræmic convulsions were very violent, ether has been administered. The diet has been nourishing and at the same time that which could be easily digested, such as eggs and milk.

When it was deemed advisable to administer stimulants the malt liquors have been used in preference to the distilled. Vapor baths were tried in several cases, but were of doubtful advantage. In the chronic variety a general supporting treatment has been adopted, with the result of prolonging the life of the patient. Tincture of the chloride of iron, the citrate of iron and quinine and sulphate of quinine have been the principal drugs administered. Particular attention has been paid to bathing, in order that the skin might be kept in as healthy a condition as possible. The improvement in many cases has been marked, but this must be attributed in part to the removal of the patients from the exposure, coarse fare and uncomfortable quarters incident to a life on shipboard to the comforts of a hospital.

Chambers's treatment of acute rheumatism was adopted during one year, from Aug., 1869, to Aug., 1870, and although the number of cases treated during that time was not sufficient to warrant any very important deductions, the severer symptoms seemed to be relieved sooner by this treatment than by any other. Chronic rheumatism, of which there has been much more than of the acute form, has been treated with iodide of potassium, counter-irritation to the affected joints (either by blisters or tincture of iodine), and generous diet. In almost every case the patients have been much relieved. Alkaline baths were also tried in a few instances with very good results.

THE CHILDREN'S HOSPITAL,

Located at the corner of Washington and Rutland streets, has thirty beds for young children, twenty-seven of which are now occupied, this being about the average number. More surgical patients have been usually received than medical, and many cases of hip disease have been recovered from, or greatly benefitted at this Hospital. Some are now there under promising treatment. Rest, extension, generous diet, and suitable adjuvants are the principles of treatment. In one of the wards is a case of severe crushing of thigh and leg in a child three and a half years old; the injury involved the inner parts of the limb, tearing the soft tissues extensively. The case is now progressing remarkably well.

Scarlet fever appeared a few weeks ago in a patient who had not left its room, hardly its bed, for months, without any known or discoverable exposure from without. Two others broke out with the same disease three days later. All were removed, and no other case has as yet occurred.

In the same way measles appeared last spring, and seized upon seventeen inmates. A method of preventing such diseases, if known, would be a great boon to this and similar institutions.

BOSTON DISPENSARY FOR SKIN DISEASES.

This Institution has been in existence between five and six months. During this time nearly 600 patients have been treated, an average of eight new cases daily, as the dispensary has been open only Mondays, Wednesdays and Fridays. Through the summer, it will be open on Wednesdays only.

The fact of the existence of this Dispensary was for a few months kept before the public by means of advertisements. It was found necessary to discontinue these, the number of patients presenting themselves becoming greater than could be treated with justice to each one. The position of assistant physician will be offered in the autumn to the younger members of the profession. Several exceedingly rare and interesting cases have been met with.

The patients, almost without exception, come from South Boston and the adjacent districts of the city proper farthest from the hospitals, precisely the class for the benefit of which the Dispensary was organized, though a few patients from other States have also been sent for advice. Patients able to pay receive cards inscribed with the names of the dermatologists of the city in the order of their seniority.

Students of the medical school will be admitted in the autumn, and every assistance will be given to those interested in this most important branch of medicine.

The Institution may be considered a self-supporting branch of the General Dispensary as it now exists, or the nucleus of the General Dispensary of the future, the opinion of its founders being that a General Dispensary is not a place where every kind of disease may be sent for treatment, but where the best treatment possible is offered by specialists in every branch to whatever class of diseases may be presented.

DEER ISLAND HOSPITAL.

At this hospital (almshouse), under the charge of Dr. S. H. Durgin, who is also Port Physician, are collected a number of cases of the various ailments incident to all ages from infancy to old age. The number and variety of these cases make this hospital a most desirable residence for any medical student who expects to devote himself to general practice. At present, there is nothing of special interest to advanced practitioners unless we except a few cases of fracture, and of Bright's disease, or a few good examples of extensive impetigo.

Dr. Durgin, not long since, performed, at the almshouse, the somewhat singular operation of extracting a hair-pin from the urethra of a man, by perineal section. The healing was complete, and the recovery of the functions was perfect. It is not improbable that at some future time the case may be reported at length.

In full view of Deer Island is the new Quarantine Hospital at Gallup's Island, where the sick, removed from ships as they come into harbor, are taken care of and treated until it is proper for them to go up into the city.

The Expectant Treatment in Abdominal Pregnancy—Perforation of the Uterus with the Sound.—In a letter from Vienna by Dr. Englemann (St. Louis Medical and Surgical Journal) the history of a case of abdominal pregnancy, under the charge of Prof. C. Braun, is given. The patient died from peritonitis a few days after the uterine sound had been introduced, entering quite deeply, the point to be plainly felt apparently just beneath the abdominal walls, Professor B. believing that the instrument had entered one of the oviducts. The post mortem showed that the uterus was completely perforated at one point, and almost at another, and that the uterine openings of the oviducts were only sufficient to admit a fine probe. Dr. Martin believes those cases usually described as soundings of the oviducts were really perforations of the uterus. In cases of abdominal pregnancy Dr. M. usually prefers the expectant method, because he considers the operation for the removal of the child and secundines exceedingly dangerous, much more so than the Cæsarean operation of ovariotomy; and that it is better to wait quietly, trusting that the fœtus may perish and become encysted or be eliminated by a process of suppuration.

The fact that in the Vienna case given above, the uterine sound, in the hands of one of the ablest obstetricians and gynecologists in the world, perforated the uterus, and this too when the operator believed, until an autopsy told the truth, that the instrument had passed into an oviduct, should impress every one with the utmost caution, not only as to the cases in which this instrument may be used, but also in the manner of using it.

Paracentesis performed in a Case of Ascites One Hundred and Thirty-six Times. Drs. Haymaker and Graham, of Oregon, Ind., communicate the following extraordinary case: "Mrs. Christiana Gyer, aged sixty-one years, mother of three children, suffered in the summer of 1853 from œdema of the lower extremities, which was soon followed by ascites. Under the use of medicines the effusion disappeared. In the spring of 1854 the ascites returned, and became so urgent that she was tapped, in May, by Dr. Morrison, of Lexington, Ind., and ten gallons of fluid removed. Since that time she has been regularly tapped by her husband, at intervals of from six to twelve weeks, an average of five gallons being removed at each operation. She has now had paracentesis abdominis performed one hundred and thirty times in less than eighteen years, and the enormous amount of six hundred and eighty-five gallons thus removed. This patient takes no medicine, does all her own house-work, and bids fair to live to be a hundred years old."

This certainly is a remarkable history. More than twenty-one barrels of fluid from the peritoneal cavity — or, putting the matter in *weight* instead of *measure*, some six thousand eight hundred and fifty pounds—in less than eighteen years! We feel like following the sentence by at least half a dozen exclamation points. It certainly is more remarkable than the noted case of Dr. Mead's; for his patient, a female, had only about two thousand pounds removed in seven years and six months; and, then, she died! Thinking that she had a most wonderful experience, in her will she directed that the fact mentioned above should be recorded upon her tombstone. Fortunately, she cannot be disturbed by the fact that Mrs. Christiana Gyer, having the same disease, has lived with it more than twice as long, and has had extracted from her nearly five thousand pounds more.

Cann reported to the Academy of Medicine, Paris, 1842, the case of a female with ascites fifteen years, who was tapped eight hundred and eighty-six times, and was cured. Our Indiana case must yield to this. —*American Practitioner.*

An Ancient University.—The University of Oxford celebrates its one thousandth anniversary this summer.

Medical Miscellany.

The City Smallpox Hospital.—We observe that a petition has been presented to the City Aldermen asking the removal of the Smallpox Hospital on Albany street, because of its alleged dangerous proximity to places of business which have been established since the hospital was opened.

Will those who have control in such matters, give any good reason why the Albany street pest-house is kept over-crowded while the harbor accommodations, the hospitals on Deer Island and Gallup's Island and Rainsford Island are almost empty? Certainly, all the advantages of good air, abundant room and quarantine, belong to the latter places.

Annual Meeting of the Iowa State Medical Society.—The twentieth annual meeting of the Iowa State Medical Society was held at Des Moines, June 26th and 27th, 1872.

A new Constitution and By-Laws were adopted, making it a delegated body in the future. The attendance was fair, and there evidently is an increasing interest felt in the profession throughout the State in regard to the success and usefulness of the Society.

Increase of Heart Disease.—Dr. Quain, of England, in his Lumleian Lectures at the College of Physicians on "Diseases of the Walls of the Heart," states that during the last twenty years the total of deaths of males, at all ages, from heart diseases, has increased in number from 5746 in 1851 to 12,427 in 1870. The percentage of deaths from heart diseases for one thousand of population living was .755 between the years 1851 and 1855; it had risen to 1.085 from 1866 to 1870. This increase has taken place wholly in connection with the working years of active social life. There is no change in the percentage of deaths from this cause in males under twenty-five years of age.

The Trustees of the Massachusetts State Lunatic Hospital have appointed Dr. Bernard D. Eastman, of Washington, D. C., as superintendent, in place of Dr. Bemis, resigned. Dr. Eastman has won a reputation in this specialty of the highest order, having been for some time connected with the New Hampshire State Asylum, and for the past seven years with the Government Hospital for the Insane at Washington, in which Institution he now occupies the position of first assistant superintendent. Dr. Eastman will enter on his duties about the 23d instant. The trustees have also appointed Dr. John G. Park, of Worcester, to the position of assistant superintendent.

Medical Witnesses, it seems, get better served abroad than hereabouts. The following is from a late number of the *British Medical Journal*:—

"Two medical witnesses from America, before the Habitual Drunkards' Committee, have received the sums of £273 13*s*., and £261 18*s*. for their expenses. The payments have been the subject of conversation in the House of Commons."

Artificial Smallpox is an amusing expedient for escaping from prison. A Tombs prisoner, having procured croton oil, sprinkled it on his face and hands, causing pustules, which looked so very like smallpox that he was on the point of being removed to Bellevue Hospital. Four others tried the game, but the thing didn't happen to work and the scare subsided.

Dr. Nelaton, the eminent French surgeon, is reported to be in failing health, caused by an internal tumor which cannot be reached or cured. In the patient expectation of death, the afflicted gentleman beguiles the time by translating "The Odyssey."

Books Received.—A Year-Book of Therapeutics, Pharmacy and Allied Sciences. Edited by Horatio C. Wood, Jr., M.D. New York: W. Wood & Co. 1872. (From the Publishers.)—Medical Register of New York and Vicinity. 1872–73. A. E. M. Purdy, M.D., Editor. New York: W. Wood & Co. 1872. (From the Publishers.)

Deaths in seventeen Cities and Towns of Massachusetts, for the week ending July 13, 1872.

Cities and Towns.	*No. of Deaths.*
Boston	216
Charlestown	10
Worcester	23
Lowell	29
Milford	7
Chelsea	4
Cambridge	38
Salem	13
Lawrence	25
Springfield	21
Lynn	13
Fitchburg	5
Taunton	6
Newburyport	4
Somerville	7
Haverhill	5
Holyoke	20
	446

Prevalent Diseases.

Cholera Infantum	138
Consumption	46
Dysentery & Diarrhœa	15
Pneumonia	15
Typhoid fever	11
Measles	8

Boston reports nine deaths from smallpox. Of the deaths from cholera infantum, sixty-two were in Boston, twelve in Cambridge, ten in Lawrence, nine in Holyoke and nine in Springfield. Of the deaths from typhoid fever, six were in Lowell. Of the deaths from measles, six were in Holyoke.

George Derby, M.D.,
Secretary of State Board of Health.

Deaths in Boston for the week ending Saturday, July 13th, 216. Males, 132; females, 84. Accident, 7—apoplexy, 2—inflammation of the bowels, 6—inflammation of the brain, 1—congestion of the brain, 4—disease of the brain, 9—burned, 2—cancer, 3—cerebro-spinal meningitis, 2—cholera infantum, 62—cholera morbus, 3—consumption, 14—convulsions, 1—croup, 1—debility, 3—diarrhœa, 11—dropsy, 1—dropsy of the brain, 3—drowned, 4—dysentery, 1—exhaustion, 1—scarlet fever, 1—typhoid fever, 4—gastritis, 2—disease of the heart, 4—insanity, 1—intemperance, 1—jaundice, 1—homicide, 1—disease of the kidneys, 1—disease of the liver, 1—inflammation of the lungs, 10—malignant pustule, 1—marasmus, 17—old age, 4—paralysis, 1—pelvic cellulitis, 1—puerperal disease, 1—pyæmia, 1—suicide, 2—smallpox, 9—sunstroke, 6—teething, 1—trismus nascentium, 1—whooping cough, 1—unknown, 2.

Under 5 years of age, 124—between 5 and 20 years, 12—between 20 and 40 years, 42—between 40 and 60 years, 22—above 60 years, 16. Born in the United States, 165—Ireland, 31—other places, 20.

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Original Communications.

OXYGEN AS A REMEDIAL AGENT.

By J. Henry Davenport, M.D. Harv.

The idea of inhaling oxygen as a remedial agent is by no means a new one. It was practised sixty or seventy years ago by Dr. Beddoes, but given up because the gas could not then be obtained in sufficient quantity, cheapness and purity. It was thought that the impurities caused irritation of the lungs, and even salivation had resulted where the oxygen had been procured from the red oxide of mercury. Moreover, caoutchouc in its present form was then unknown to the arts, and there existed a difficulty in handling the gas which the rubber bag of to-day has entirely removed. Dr. Beddoes used small closets and chambers which were filled with oxygen at large expense. But it was the discovery, by Téssie du Môtay, of a process of obtaining oxygen from the atmosphere in almost absolute purity, the only adulteration being the admixture of a slight proportion of nitrogen, a normal element of the atmosphere, that at once removed the objections of impurity and high cost. This process is so admirable for its simplicity and perfection that, like most great advances in science, the wonder is that it was not discovered before. His method is as follows:—Manganate of soda is heated to a very high temperature in iron retorts, and while in this molten state a current of atmospheric air is made to pass over it. The salt vividly absorbs the oxygen of the air in large quantities, together with a little of the nitrogen. The current of air is then shut off, and one of superheated steam substituted. The oxygen absorbed from the air is given up to the steam and with it passes along to a condenser, where the steam is condensed and whence the oxygen is conducted away to a gasometer. The sole expense is that of the fuel, as the manganate of soda can be used repeatedly. Oxygen thus obtained has found many uses in the arts; and in New York most especially in cheaply furnishing the blast for the lime light for night illuminations of theatres, street advertisements, &c. It is even proposed by the N. Y. Oxygen Gas Company to illumine the principal streets of the city by substituting the lime light for ordinary street-lamps, and it is claimed that oxygen can be furnished as cheaply as the coal gas.* Môtay was not thinking so much of medicine as of more remunerative arts when he published his process. Nor was it until May 1st, 1870, that a small number of the most eminent physicians of New York, "believing that a benefit to the public would result from having a sufficient supply of oxygen, in a portable form, for medical use at all times accessible," suggested to the Oxygen Gas Company the establishment of a depot for that purpose in a central locality. Among the signers were Geo. T. Elliott, Wm. H. Van Buren, Alonzo Clarke, Willard Parker, Austin Flint, and other names of equal fame in the medical world. Accordingly, an office was opened on Broadway, near the Fifth Avenue Hotel. The gas is furnished in copper or iron cylinders, in shape and size somewhat resembling the familiar chemical fire-extinguishers, and containing one or two hundred gallons of oxygen compressed by a force equal to seventeen atmospheres. From one of these as much is drawn off into a rubber bag as is needed from time to time for inhalation. During the second year that oxygen was thus offered in portable form to the medical public of New York, upwards of 400,000 gallons of the gas were sold for medical purposes, and the demand is constantly increasing.

A new field was thus thrown open to competition. During the same year (1870), the prize of the Alumni Association of the College of Physicians and Surgeons was awarded to Dr. A. J. Smith, now Lecturer on Materia Medica in the Long Island College

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* Since the above, the oxyhydric light has been tried in Paris in the street-lamps of the Boulevard des Italiens. It was not a success, and is now discontinued there, on account of its complicated management and its expense.

Hospital, for an essay on "Oxygen as a Remedy in Disease." The essay follows the history of the gas from its discovery during the last century, by Dr. Priestly, to its dispensation in New York in 1870. Dr. Priestly was the discoverer, not only of oxygen, but also of its peculiar relation to animal life, and suggested its possible employment by the physicians. But his words fell on ears as unwilling as those of the surgeons to whom Sir Humphrey Davy formerly recommended the possible use of nitrous oxide as an anæsthetic.

Dr. Smith's essay having brought the subject prominently before the profession, there appeared during the succeeding year various articles in the local journals of New York, speaking highly of the power of oxygen, and from a study of the cases thus made public the following therapeutical uses may be deduced.

The diseases in which oxygen is of benefit are conveniently divided into three classes:—

First, those involving dyspnœa, which are essentially acute. The oxygen here acts only as a palliative, serving to bridge over a chasm, and give nature an opportunity to recover her scattered forces. It merely prevents death from absolute suffocation arising from imperfect aëration, or, more properly speaking, oxygenation of the blood. Examples of this class are the acute stages of bronchitis, Bright's disease, heart disease, uræmia, opium poisoning, and the like.

Second, those involving defective nutrition or excretion, which are essentially chronic. Oxygen here acts as a tonic, increasing the weight and strength, and visibly restoring the natural ruddy hue of the face in health. It has in this way been found valuable in phthisis, emphysema, acute dyspepsia, anæmia, &c. In these affections, three or four gallons are inhaled daily.

Third, in certain spasmodic diseases, oxygen has an unexpected but welcome effect. It is a sedative, though an indirect one, and has been found of great use in asthma, chorea, epilepsy, and many other ailments of a convulsive nature.

Perhaps the mode of action of oxygen can be best appreciated from the recital of a few cases from the journals.

A child, 2½ years old, was at the point of death from bronchitis intercurrent with measles. Dr. Little was called in consultation, and considered the case hopeless. The respiration was 80 per minute, accompanied by râles audible at some distance from the bed; pulse too frequent to be counted; face pale and dusky; extremities cool; body excessively hot. About four gallons of oxygen were administered at 10, P.M., with little effect. At midnight the administration was resumed, and continued without intermission until 3, A.M. Within an hour the respiration had fallen to 60, and the pulse to about 160. By 2, A.M., the face had regained its natural color, the mucous râles were *no longer audible unless the ear were placed to the chest.* The inhalation was continued irregularly for five hours longer, when it was wholly discontinued. The next day convalescence was fully established.*

Dr. Peaslee related, before the New York Medical Journal Association, a case that came under his notice of an aged lady who had been suffering from disease of the heart for some two years. A sudden attack of dyspnœa came on. About five gallons of oxygen was inhaled every ten minutes. Very soon the dyspnœa was relieved, the lividity of the lips removed, and she was comparatively comfortable. Moreover, the oxygen aroused her from the state of stupor into which she had sunk, and to which she would regularly return on stoppage of the oxygen. There was, of course, no arrest of the pulmonary œdema. The liquid rose higher and higher, the patient sitting erect. In Dr. Peaslee's opinion, the gas did great service in unquestionably prolonging her life until the medicine given for the œdema had time to operate, which it did in the course of about half a day. The next day there was a relapse. Oxygen was again resorted to. Matters continued thus for about ten days, and the patient seemed to be out of all danger for the time being. But symptoms of double pneumonia setting in, she died very soon. After the outbreak of the pneumonia oxygen was given for three days, and enabled her to converse with her family up to ten minutes before her death. In this case the patient knew her condition perfectly, and desired to live until her son and daughter could come on from the West; and Dr. P. is convinced that the oxygen alone enabled her to accomplish her desire.

The case of the late Secretary Stanton, as related by Dr. Smith, was one in which oxygen was the means of averting a great deal of suffering. He was subject to severe paroxysms of asthma, which seriously aggravated his condition during his last illness. His physician, Surgeon-General

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* New York Medical Record, June, 1869.

Barnes, U.S.A., procured a supply of compressed oxygen, of which three or four cubic feet were inhaled daily. It controlled the paroxysms completely, and, so far as the asthma was concerned, met every indication. Gen. Barnes expressed himself warmly in favor of the gas in similar cases, and stated that both he and his illustrious patient were entirely satisfied with its effects.

We cannot, for want of space, rehearse any cases illustrating the tonic effect of oxygen. Demarquay even asserts its remedial power over some forms of diabetes, and states that by its agency he has reduced the sugar in the urine by one half, the diet remaining unchanged.*

Among the most interesting clinical observations have been those of Dr. Smith on the effect of inhalations of oxygen upon the pulse. The first series of 102 cases were upon 11 phthisical patients, in 62 of whom the pulse was retarded 10 beats per minute, in 16 the rate was not modified, and in 12 there was an increase of 6 beats. Among the 11 patients experimented upon, 3 uniformly presented a lowering of the pulse, while the 8 others varied, though usually the pulse was diminished.

In a second series of 12 observations on 12 healthy individuals, 4 presented no modification, while the 8 others presented a diminution of 9 beats per minute.

If the reduction of the pulse had been confined to the phthisical cases, we might suppose that the action of the oxygen had been merely that of a stimulant, such as brandy; but when we consider the effect produced on the system in health, this view, Dr. Smith thinks, is not tenable. The indication seems to be that oxygen is an arterial sedative, not perhaps analogous to digitalis or veratrum viride, but acting indirectly, causing a change in the blood which facilitates the circulation and lessens the labor of the heart. This sedative action was sufficient, in a case of nervous debility related by Dr. Peaslee, to cause sleep where chloral had only a partial effect.

A third series of experiments was made with the aid of the sphygmograph. It is impossible here in the absence of plates to dwell on the results obtained. But they are worthy of the attention of those versed in the study of sphygmography. In a general way, we may say that the height of the curve is increased and the dicrotism more pronounced. Oxygen, in a word, gives greater regularity to the pulse.

The amount of oxygen used in these experiments was generally about eight gallons, which was inhaled gradually in the course of a few minutes.

The method of action of oxygen in relieving dyspnœa is sufficiently obvious. If the patient breathes an atmosphere containing an increased proportion of oxygen, the blood is more quickly and thoroughly saturated and the breathing made proportionally easier. But, although it may be said in general terms that nearly every disease involving dyspnœa may be at least temporarily relieved by inhaling oxygen, still this help is not always so speedily found. Though so clearly indicated theoretically, we often meet with rugged obstacles in practice. Nor is it by any means clear why a remedy so magical at some times is so powerless at others. At present, several reasons have been offered in explanation. The blood is said to be very nearly saturated with oxygen in ordinary respiration, and even an atmosphere highly charged with the gas cannot add very greatly to the quantity absorbed. If there be a partial obstruction in the air-passages, leaving the air-cells intact—a condition, for example, which obtains in bronchitis—then by adding to the little air that really is inspired an extra amount of oxygen, we may preserve the effect of the standard respiration.

But if the air-cells of a large portion of the lung are filled up, a condition that is found in extensive pneumonia, add as much oxygen as we please to the air which penetrates the remainder of available lung, and yet we may not be able to force into the system the usual and necessary supply.

Moreover, as Dr. Neftel observes, we must remember that the process of oxygenation is subject indirectly to the nervous system through its connection with respiration, which, with its complex and ingenious coördination of movements, is governed by the respiratory centre in the medulla oblongata. Whenever, then, asphyxia is due not to want of air in the lungs but to a diseased condition of the nervous system, we cannot expect much from the use of oxygen. Again, since the red corpuscles are the chief agents in the reception of oxygen, it is evident that when they are deficient, either in number, as in leukæmia, or in quality, as in diabetes, oxygen must often fail to be of any marked benefit.

It would be interesting to detail some of the physiological experiments with oxygen on animals. We have often noted when breathing oxygen the ease with which the breath can be held for a period almost impossible when inhaling merely atmospheric air. By saturating the system with oxygen, we obtain a condition of "apnæa" in which respiration practically ceases for the time being. It has even been shown that an animal in the convulsions caused by strychnia has complete relief from them while in this condition of "apnœa." Some experiments of our own in this matter are reserved for a future paper.

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* See Ringer's Therapeutics, New Edition.

496 *Tremont St., July,* 1872.

A CASE OF DEATH FROM BATHING; WITH REMARKS.

By W. H. Campbell, M.D. Harv.

I was called, on the afternoon of the 13th inst., to see a girl of about 14 years of age, who was said to be dying. I found her unconscious; gasping for breath, but with the heart beating strongly. In a few minutes after my arrival, she ceased breathing entirely, while the heart continued to beat for a considerable time after respiration had entirely ceased. On inquiry, I learned that she was in good health on the day previous, and that about the middle of that afternoon, she went to a public bathing house near by her home to bathe.

On her return, she complained of headache, and told her mother that while in the water she "felt her ears burst"—whatever that might mean. She slept somewhat during the night, but complained of restlessness, discomfort and bad dreams.

Next morning, the headache became more intense, and vomiting set in, to relieve which, soda powders had been administered without the desired effect.

The vomiting continued all the forenoon, and till about 2½, P.M., when she became convulsed, and fell into a state of stupor from which she did not rally.

So far as I could learn—and I made careful inquiry—she had not been unduly exposed to the sun's rays, but as the day was hot, she was probably more or less affected by the increased temperature, and by going into the cold water a sudden and rapid chilling of the surface took place, causing congestion of internal organs—the brain and other nervous centres receiving the severity of the shock.

As no other cause of death could be discovered, I attributed it to the cold bath, and I think with reason.

In the public bathing-houses of this city, the water is let into the tank at the bottom, and flows off at the surface, so that a constant current is kept up, the water thus retaining a temperature about the same as that of the Cochituate received directly from the main pipes, which is certainly not very cold, but is yet too cold to be immersed in for any great length of time.

In this cold water, I am informed that boys and girls are in the habit of remaining, unrestrained, as long as they please, it being a popular notion that bathing at any and all times, is "healthy."

In these days, when the use of the cold bath, as a remedial agent, has been reduced to almost an exact science, it is well to inquire how much the sanitary condition of our city is improved by this wholesale and ill-regulated bathing.

Undoubtedly, cold baths are of value in the treatment of some forms of disease, but whether the general and every-day use of such baths is conducive to the health of a community, is by no means so certain.

No bath of less than 98° Fahrenheit can be other than a depressant if the bather remain in it longer than one or two minutes; and in excessively hot weather, such a bath may not only prove a depressant, but by its use the system may even receive a shock that is incompatible with life. Bathing for purposes of cleanliness is to be recommended. Beyond this it cannot but be injurious; and it would be as rational a pastime, and as little deleterious to health, for all the little boys to take a dose of Epsom salts every morning, as to go in bathing, indiscriminately.

Rules for bathing, for the purpose of guarding against some of its evils, might be framed, but it would be like making rules for the safe use of narcotics, or for the following of any other more or less injurious habit.

However, as we have free bathing-houses, and people will bathe in them, the following suggestions may not be amiss, especially at this season of the year:—

1st. The temperature of the water should be as near that of the body (98½° Fahr.) as possible; below this, the colder the water the more injurious it may be. (The Cochituate water is now about 75° Fahr.)

2d. The surface of the body should not be in a state of perspiration when entering the bath; nor should the body be overheated through exercise; nor cold, or in a state of chill.

3d. The bath should not be resorted to immediately before or after a meal, as it will surely interfere with the process of digestion. The best time is probably just before retiring for the night, the body then having a chance to recover from the depression induced by the bath.

4th. Five minutes is long enough to remain in the water, and the bath should not be repeated oftener than once in twenty-four hours—better once or twice a week only.

5th. The best way to enter the bath is headforemost. If this is not agreeable, the head may be well wet before plunging in, and it should be kept well wet during the whole time spent in the water.

6th. Diving does no harm if the bather does not remain beneath the surface too long; but the attempt to show how long immersion of the head can be borne is obviously a very dangerous sport.

7th. After leaving the water, the body should be thoroughly dried, and the clothes put on as soon as possible; lingering about naked, or only half-dressed, being very injurious.

If the foregoing suggestions were always attended to by bathers, some of the dangers I have referred to might be obviated, and the luxury of a cold bath be rendered comparatively harmless.

1328 *Tremont St. (Roxbury),*
July 18, 1872.

Reports of Medical Societies.

BOSTON SOCIETY FOR MEDICAL IMPROVEMENT.

F. B. GREENOUGH, M.D., SECRETARY.

May 13th, 1872.—*Umbilical Hæmorrhage.*—Dr. Sinclair reported the case.

The child, at birth, appeared healthy. Its father had been enfeebled by a gun-shot wound, and its mother was a "nervous" woman. On the morning after birth, an ecchymosis was observed on the shoulder and some others on the extremities. In the fear of umbilical hæmorrhage, directions were given to apply the persulphate of iron if necessary. Hæmorrhage came on, first from the gums, then from the navel, and afterwards from the bowels. There was no jaundice. It died on the fifth day. Dr. Sinclair asked in what such a case differed from purpura hæmorrhagica.

Dr. Bowditch spoke of two cases which he had seen, occurring in the same family. In both the first symptom was oozing from the cord.

Dr. Minot said that the trouble in these cases was that the blood did not coagulate. In some respects these cases do resemble purpura hæmorrhagica, although the purpuric spots are not usually as round. It is not uncommon to have more than one case in the same family. Nearly fifty per cent. of the cases are jaundiced, and eighty-four per cent. are fatal. If, however, the patients live for a certain number of days they recover, and show no signs of hæmorrhagic tendency in after life. Hæmorrhage is not confined to the umbilicus, but usually comes also from the mucous membranes, or from any cutaneous scratch, as one made by the forceps. Dr. Minot had had four cases in one family. He did not know the proportion of cases in which the hæmorrhage was confined to the navel, but this was the case in some, while, on the other hand, in others there was no umbilical hæmorrhage, the blood coming entirely from the mucous membranes. In all cases, however, he thought the blood was of the peculiar purpuric character.

Dr. Fifield said that we might have hæmorrhage from the cord independently of purpuric tendency, and quoted two cases where it was due to nævi in that situation.

May 13th.—*Fatty Dejections for four Years; Cancerous Disease of the Pancreas and Liver.*—Dr. Bowditch reported the case, which occurred in the practice of Dr. Young, of Gloucester.

"The patient was a school-teacher, æt. 39, born and still living in Gloucester, Mass. House dry, on northern side of hill. When young, the patient enjoyed an average degree of health. During her life she has had some fevers, never severe; the last occurred two years since, with headaches and some looseness of the bowels, but she was only three days absent from school, where she has been constantly at work till the present day.

"Four years ago, the present illness began with a diarrhœa, which has continued more or less till now (March, 1872). After it had continued three weeks, she first noticed that the discharges contained fat, sometimes separated from fæcal matters, at other times entirely free from them. The fat separated and floated on any liquid. For the past year, by the advice of a physician, she has used much fatty food. The number of daily dejections have varied from two to seven for the four years past. Of late, they are less numerous than at an earlier period. She cannot tell why they vary. If, one day, she has one, the next day she has many. No pain accompanies them, but a sense of fulness of the bowels, which is relieved by a dejection. Only within the past month has she had some slight indigestion, marked by a distress, but no sharp pain or other symptom. Rarely, there is acidity. The urine seems to her to be natural. Slight palpitation during the past few months, but only on going up stairs. Menses, well. About four weeks ago, nearly one half a pint of blood came from the rectum, unmixed with fat, but fresh and bright. No pain or smarting in the rectum or backache with this. No trouble in head. Her countenance was pale, but not unhealthy looking. No look of malignant disease was noticed. She had used the pancreatic emulsion for the past months, but had been nauseated by it. A large quantity of fœtid masses of yellow fat, containing fat cells and various crystals, were sent subsequently."

She was ordered to avoid fat, and to try citrate of iron and quinine, ten grains three times daily.

She died April 1, 1872. She gave up her school nine weeks before, owing to the prevalence of smallpox, but she soon began to grow worse. She kept about the house, lying upon a lounge three or four weeks, and then took to her bed, remaining there five or six more, suffering with pain and distress in the region of the liver and abdomen generally. A little vomiting occurred during the last week, and the dejections were less fatty towards the last two weeks. They became copious, rather dark, with small masses of white substance merely, but no positive fat. Complained of heat, but there was no unnatural heat of skin. Appetite poor. No palpitation. Breathing easy, except during the last day or two. No great emaciation. Some yellowness of skin, and a little of conjunctivæ a week or ten days before death.

Autopsy, by Mr. Sabine, house pupil of the Massachusetts General Hospital. Emaciation was not very marked. The color of the skin was quite yellow. The feet were slightly œdematous. In making an incision through the abdominal walls, the knife met with some resistance over the epigastrium, as though it rested upon some firm substance. On removing the sternum, the diaphragm was found pushed up to a level with the junction of the third rib with its cartilage on the right, and with the junction of the fourth with its cartilage on the left side. The lungs were perfectly healthy, being of a dark color on their posterior surface, due to hypostatic congestion. The muscular substance of the heart was rather paler than usual, and the aortic valves somewhat fenestrated; otherwise the organ appeared normal.

The peritoneal cavity contained above one pint, by estimate, of clear, yellowish fluid. All the abdominal viscera were perfectly healthy, with the exception of the liver, pancreas and kidneys. No examination was made of the uterus.

The liver, which was enormously enlarged, was removed, together with the pancreas and duodenum, in one mass, the supra-renal capsules adhering to it. The mass was found to weigh 10½ lbs. The kidneys were of normal size, but the convoluted tubules had the appearance of being fatty.

The following is the report of the examination of the liver, pancreas, &c., as made by Dr. Fitz.

The head of the pancreas was enlarged nearly to the size of the closed fist; it was dense and heavy. The rest of this organ, as observed externally, was apparently normal.

On section through the head, a soft, yellow, pulpy mass was displayed, enclosed in larger and smaller amounts between tolerably dense septa of fibrous tissue, the normal gland structure having entirely disappeared.

The mucous membrane of the duodenum lying over the pancreas was ulcerated, a loss of substance as large as a nickel cent having occurred, separated by a bridge of mucous membrane from a smaller ulcer in the immediate vicinity. The base of the ulcers was formed by the broken-down, somewhat firm, yellow, cancerous gland.

The duodenal orifice of the pancreatic duct was completely plugged by a rounded, cancerous mass, apparently lying in and beneath the mucous membrane of the same, which had ulcerated, however, over its convexity. This plug, nearly as voluminous as the little finger, filled the duct as far back as the junction of the tail with the head of the organ, beyond which point a tolerably uniform dilatation existed, large enough to admit a finger, and filled with an opaque, yellow pultaceous fluid.

The liver was considerably enlarged, very heavy, of an intense yellow color; the surface irregular from the presence of rounded, flattened elevations, at times umbilicated, an inch and less in diameter, projecting above the surface a line or two. The peritoneal investment was thickened and opaque over these nodules; elsewhere thin and transparent. So numerous were these elevated patches that but little of the hepatic tissue remained. On section through the organ, its substance was seen to be crowded with nodular masses, varying in size from that of a pea to that of a plum, their periphery often more or less serpentine, in many places confluent; again, homogeneously infiltrating the hepatic tissue over a very considerable surface. The nodules were of a sulphurous yellow color, very soft, breaking down under the knife, often traversed by fibrous threads and bands which divided the mass into irregular compartments. Numerous branches of the portal vein, cut in various directions, were found to contain a similar substance to that existing in the nodules. Pressure applied to a portion of the liver caused soft, yellow plugs to project from the surface to a considerable distance.

So general was the alteration of the liver that but little of the normal structure remained. The left lobe was somewhat less diseased, proportionally, than the right, and the hepatic cells were infiltrated with fat to an extreme degree, as a rule, of a marked yellow color. In parts the acini were of a diffuse reddish-yellow color, as if extravasated blood were present.

The portal vein, outside the liver, was completely filled with a soft, friable, reddish-yellow mass, moderately adherent to the wall. When separated, delicate threads were seen to connect the wall with the thrombus. Microscopical examination showed that many of these threads were minute bloodvessels. The structure of the thrombus resembled that of the cancerous masses found elsewhere. This thrombus extended into nearly all the hepatic branches of the portal vein, as far into the liver as the same could be followed with scalpel and scissors, also for some distance into the mesenteric veins where it terminated as conical points, on the surface of which was found a layer of recently coagulated blood. The fibrous tissue in the porta of the liver presented a normal appearance; the lymphatic glands were swollen slightly and œdematous. But one of these was found to be the seat of the cancerous growth; in this instance, a nodule hardly larger than the head of a pin was found.

The gall-bladder, dilated to the size of a large Bartlett pear, was distended with a greenish-brown, fluid bile. Its walls apparently healthy. The cystic and hepatic ducts presented no unusual appearances. The common bile-duct healthy except at its entrance into the duodenum, where a fringed mass of excrescences, apparently composed of œdematous mucous membrane, projected, polypus-like, into its canal.

The microscopical examination of the new growth showed it to be made up of delicate alveolar spaces, varying extremely in size, with walls of fibrous tissue and with cellular contents resembling to a considerable degree columnar epithelium, everywhere fatty degenerated, often converted into granular detritus.

The above case is peculiarly interesting, from the fact of the total closure of the pancreatic duct by a nodule of cancerous matter, and the connection of this fact with the fatty stools.

Dr. Bowditch said he had not had time to collate other cases in connection with this, but refers those who wish to do so to some details in the *British and Foreign Med. Chirurg. Review*, 1853, and to the *Transactions of the Am. Med. Association* for 1853.

May 13th.—*General Tuberculosis, with double Pleurisy, following Measles.*—Dr. Minot reported the case.

The patient, W. M., a lad 18 years old, from Cape Breton, entered the Massachusetts General Hospital April 3d, 1872. For a month previously he had been troubled with dyspnœa, and had lost much flesh. Three weeks before entrance he had an attack of measles, which kept him in bed four days. He thought he took cold on going out, soon afterwards, and was confined to bed again with general pain and soreness, but especially in the back and left side. The cough, which he had from the beginning of the measles, became more severe, with much frothy expectoration. He had dyspnœa, fever and sweating, but no chills.

On entrance, he was so weak that no careful examination could be made. His complexion was dusky; the pulse 128, and the respirations 48 in the minute; temperature 104°. He was unable to lie down, and was delirious in the night. With the free use of stimulants his condition improved somewhat; and, on the 5th, an examination of the chest showed that the percussion and respiration were quite good in the upper part of both backs; but in the lower half, on each side, the percussion was dull, and the respiration very feeble, with fine crepitant râles. In front, the percussion was quite dull throughout the right side, especially in lower half; there was also considerable dulness in lower half of left side. The respiration was very obscure in the right upper front and inaudible in the lower half; very strong in left upper front, but inaudible below fourth rib on that side. The heart sounds were distant. Expectoration quite moderate, in part adhesive, with some purulent matter and froth, and a little blood; there were no characteristic pneumonic sputa.

The general condition of the patient remained about the same until the 8th, when he appeared to be moribund. He afterwards improved so as to take solid nourishment freely. He sat up most of the time, but there was no change in the physical signs, in the pulse, respiration or temperature. He died, rather suddenly, on the 17th, at 3 o'clock, A.M.

At the autopsy, both lungs were found to be much compressed upwards and backwards, very firmly adherent at the apices, and contained a few miliary tubercles and one cheesy nodule. The pleural surfaces were covered with tubercles, extending into the fissures between the lobes. About two quarts of clear, yellowish serum were contained in each pleural cavity. There were a few tubercles in the liver, spleen and kidneys. The entire peritoneal surface and the mucous lining of the intestines were studded with tubercles, and about a quart of clear, yellow serum was contained in the peritoneal cavity. The heart was normal.

Dr. Minot said that inasmuch as both pleural cavities were found full of serum, it was an interesting question whether life might not have been prolonged by tapping.

Medical and Surgical Journal.

Boston: Thursday, July 25, 1872.

THE AMERICAN MEDICAL ASSOCIATION.

Under the caption of the question "Why is it that the American Medical Association so misrepresents the American Medical Profession?", and after the subsequent statement that "for years our profession has suffered in the eyes of all intelligent and honorable citizens from the ignorance, the narrowness, the recklessness, and the Titanic stupidity that, of late years, at least, has pretty uniformly characterized the public utterances of this Association," the *New York Medical Record* of July 1st proceeds to give its "explanation of the fact," and then offers "suggestions" through which, if adopted and carried out, it believes that "the American Medical Association may become a power instead of a farce in the Profession." A few extracts will show the Editor's drift, and argument.

> "The delegates attend the meetings of the Association for the purpose of having a delightful social time, and very few of them give any attention to its business management. . . . . . work on committees, or study over resolutions, or even cast their votes on any important matter.
>
> "This explains also the meagreness of the scientific contributions of the Association. . . .
>
> "The session of the Association is so short that it is absolutely impossible to settle difficult questions. . . . . An ordinary dice-box would get the average views of the profession on great professional issues better by far than the morning sessions of the American Medical Association. . . . . .
>
> "The business affairs of the Association are almost entirely controlled by one man, Dr. N. S. Davis, of Chicago. . . . . . .
>
> "To Dr. Davis, more than any one man, more than any number of men, the Association is indebted for whatever of evil or of good it has accomplished. . . . . .
>
> "These words are not in censure of Dr. Davis; they are rather in his praise. But for his watchfulness, care, and supreme influence, the Association might have passed we know not how many absurd resolutions. . . . . .
>
> "It is not our purpose here to find fault, but to explain what to many has been a great mystery, the failure of the American Medical Association to represent the American Medical Profession."

The *Record's* "suggestions" for remedying all this are four:—"closed doors"—"re-elect delegates"—"banish useless lumber called Transactions"—"large committees, fairly chosen."

Such, in brief, are the explanations of the *Record*, and such is its remedy. To its explanations, so far as they go, we have but one exception to take, and that is to its words "of evil," referring to Dr. Davis. That gentleman, it is true, has been the *pater omnipotens* of the Association, having, we believe, its best interests always at heart and laboring unceasingly for its welfare, with those who assisted at its birth and those who have feebly sustained its later tottering efforts at progression—*et omnes magnus alit.* We have no acquaintance with Dr. Davis, and judge him only as connected with the Association, and must do him the justice to say that "whatever of evil it has accomplished" cannot fairly be attributed to him. He may not have been able to raise it to his ideal, but *he* certainly is not chargeable with its failure. In our opinion, the cause of this failure lies deeper than the "supreme influence" of one man, or set of men. It lies in the very constitution of the Association itself; the innate feebleness of which, the *four specifics* of the *Record* would be utterly inadequate "to redeem." It is notorious that, in the language of the *Record*, "those physicians who have made the profession what it is in America, who, by their writings, their discoveries, their learning and their personal character, have honored their country and themselves, and who have been hitherto kept aloof from the Association," have been so kept aloof by its own constitution, which allows, nay, in practical working, to a large extent seeks out and asks, those to become delegates who, in no sense whatever, truly represent the Societies or Institutions whose names are borne upon their credentials; but who, perhaps self-nominated, attend the meetings for a "good time", the junketings and festivities, or for personal and even less worthy purposes. This is notorious. What wonder, then, or "mystery" in the failure of the Association to represent the American Medical Profession! What wonder, then, that even Dr. Davis, with all "his watchfulness, care and supreme influence," has been unable to prevent its downward progress to disgraceful imbecility, until it has become, as the *Record* says, in the opinion of the "calm, wise and judicious, 'the greatest of all humbugs.'"

And is there no remedy? We think there is; for we, too, have a specific, a nostrum—which we think quite possible for Dr. Davis, with the aid of the *Record* and a few real friends of the profession, to "administer without great risk, or great effort, on the part of attendants, or great struggles on the part of the patient in its present enfeebled or almost moribund condition. After this nostrum has had time to work, the four specifics of the *Record* may be added with the certainty almost of giving a life and vigor to the resuscitated frame such as it has never yet exhibited.

Hitherto, the Association has shown, as might have been anticipated, that men, as a general thing, do not value, but rather avoid, as conferring no honor or satisfaction even, positions which, as we have intimated, any one, however inexperienced, incompetent or unfit, can have for the asking. Herein is its present weakness, which must be removed before any hope of improvement can be entertained. In future, then, let the Association have, or rather consist of a working Board, a true representative body, of limited numbers, membership in which shall be the reward of professional ability, usefulness and eminence. Two from each State would be a sufficiently large number for all practical purposes. Let this Board be called the National Council of the American Medical Association. Let this Council meet once a year at some convenient place, say Washington, or as the Board might from time to time determine, and continue in session sufficiently long to attend to all legitimate business, scientific and professional, everything in fact in the interests and needs of the profession throughout the Union—giving such advice, recommending such rules, issuing such "Transactions," as would be for the elevation and advancement of the whole profession. Let the term of service for these two National Councillors be six years—one to be chosen every three years; and, to place them as much as possible above temporary influences and purely local interests, let them be chosen by a State Council, which, for this and other duties, may be constituted and elected as follows:—

Let each of the several State Societies choose from its most experienced and best qualified men a number equal, say, to that of the State's Representatives in Congress (one third each year), and, as far as convenient, to obtain representation of all parts of the State—one from each Congressional District. Let these hold office for three years, and form what may be called the Local or State Council of the American Medical Association. They could meet yearly, or oftener if found useful, to consider, primarily, professional matters which in the State are, or may be, of National concernment, and to make selections of such as should be carried before the National Board—in short, to do all the work of a State Committee. Each of these State Boards should, once in three years, choose one of the National Councillors, as before mentioned, from their own Board or at large, wherever the best qualified could be found. As in these State Boards the chief preparative work should be done, while its revision and completion should be left to the sober judgment and more deliberate action of the National Board, the National Councillors might have seats in the State Board—without vote—in order that they might know all the arguments and circumstances relating to any case, and the wishes of the State Board, in full, to guide their own action in the National Board.

The numbers in the several State Boards would be sufficiently large and well proportioned. For a national council seventy or eighty, thus selected, would be ample; and the length of the term of service would enable them to preserve a continuous and consistent plan of work, while half of their number coming new every three years would prevent any lapsing into indifference or negligence. The influence of the State Councils, as indicated, most fully impressing their own wishes and the wishes of their immediate constituents on individual National Councillors would, through the National Board, give a voice to the profession such as was never before known. It is not necessary to give other details at present; such could be easily wrought out, the plan itself being quite feasible.

As for "ways and means," such could be arranged for without difficulty. The addition of a dollar (or even half of that sum) to the annual assessment in the State Societies, would give more than enough for all expenses, including, if thought best, mileage and pay of the National Board while in session.

Should the plan work successfully, as we have no doubt it would, eventually the State Societies might, if then thought advisable, without changing name or management in any other respect, become branches, and their Districts sub-branches of the National organization, retaining all the desirable features now possessed; and thus give to each of their members an additional bond of union with the whole profession in the country, and an additional *title* to the respect of the community at large.

In such event, the National Council could arrange for general meetings (every year or second year, and in different parts of the country), for all members who might choose to attend. At these meetings there might be orations in medicine, in surgery, and in other departments, reports, communications, discussions, and consideration of other matters of professional interest; while all the evils of the present organization would be avoided, by the exclusion of all matters of business or control, which would continue in the hands of the National Council, and not be agitated at any of these general meetings.

Under such a system as we have described, there would be no difficulty in getting the right men for these right places for them. To be a member of the State Council would be worthy of the laudable ambition of any aspiring physician; to be one of the National Board would be held by all as the highest professional honor the profession could confer upon eminent talent and well-tried fidelity to its interests.

Under such a plan the American Medical Association would soon become "a power" in the land, and connection with it, even as a member merely, an object of just pride with every high-minded and well-educated practitioner throughout the country.

Chloral as a Topical Application in Eczema.—A correspondent writes us that during the past year he has used, in several cases of chronic eczema, with very much satisfaction to his patients and himself, a solution of the hydrate of chloral as a topical remedy, in the proportion of one or two drachms to a pint of water, applied two or three times a day.

Legalized Dissections. — Michigan and Iowa have recently legalized dissections, and made provision for it by permitting physicians, medical societies and colleges to claim for this purpose the bodies of criminals and paupers unclaimed by friends.

The Month.

THE MORTALITY in Boston during the month just passed has shown a very decided increase, contemporary with the extraordinary heat. The deaths among children have been very numerous, presenting a weekly increase which is curious and suggestive. Cholera infantum has begun to demand the annual immolation of the innocents and to a degree unusual at this part of the summer.

The following table will suggest interesting deductions :—

	Whole No.	Under 5 yrs.	Chol. Infan.
Deaths in week ending June 29,	126	56	9
" " " July 6,	228	105	34
" " " " 13,	216	124	62
" " " " 20,	237	157	94
Total,	807	442	199

More than one-half the total number of those who died were under 5 years of age, and almost twenty-five per cent. of all the deaths reported were from cholera infantum.

ADVANCE OF THE CHOLERA.—A despatch from London, dated July 20th, gives information that advices from St. Petersburg state that the cholera epidemic is gradually making way from the eastern provinces and gaining foothold in the central and western portions of the empire. Moscow is now suffering from its ravages, and the disease there has assumed a most malignant form.

The proportion of deaths to recoveries is placed at eight to one. This fatality has created a panic among the inhabitants, and thousands of the better classes are fleeing into Western Europe.

At St. Petersburgh a few sporadic cases appeared, and the authorities have adopted the most rigid precautions to cut off communication between the capital and the infected districts.

A CHAIR OF PHYSIOLOGY has been established in the Maine Medical School, and Dr. Robert Amory, of Brookline, has been appointed lecturer.

CHANGES IN THE COLLEGE OF PHYSICIANS AND SURGEONS OF NEW YORK.—Dr. James W. Lane has resigned the chair of Materia Medica and Therapeutics and been appointed Adjunct Professor of Obstetrics and the Diseases of Women and Children. Edward Curtis, M.D., has been appointed Lecturer on Materia Medica and Therapeutics, and Charles F. Chandler, Ph.D., Adjunct Professor of Chemistry.

DR. BENJ. HOWARD, of New York city, has been appointed Professor of Surgery in the Medical Department of the University of Vermont, and has accepted.

THE LATE DR. EDWARD B. DALTON, OF BOSTON.—Dr. Dalton was formerly a resident of New York, and at a late meeting in that city of the Medical and Surgical Society of New York, a series of resolutions were passed eulogizing him as a man and a physician. In offering them, Dr. Geo. A. Peters made a few remarks bearing testimony to the rare character and great worth of their subject.

NEW YORK STATE INEBRIATE ASYLUM AT BINGHAMTON, N. Y.—The report of this Institution for 1871 was recently issued. The number of patients admitted since the hospital was first opened, five years ago, is 1017. Number admitted during 1871, 244; number under treatment Jan. 1, 1871, 71. Total number treated, 315; discharged, 230. In hospital Jan. 1, 1872, 85. Of the 230 discharged, 184 were discharged with great hopes of a permanent cure. Discharged unimproved, 46.

QUACKERY AND THE RELIGIOUS PRESS.—At the recent meeting of the General Methodist Conference, a proposition was made to prohibit the insertion of quack advertisements in the *Church Journal*. The motion was referred to an appropriate committee. It is suggested that not only this reform be carried out, but also that every clergyman giving to patent nostrums his individual endorsement be deprived of his ecclesiastical rights.

CREASOTE.—The sum of three hundred thalers (about $215) has been placed in the hands of the Medical Faculty of Leipzig, to be awarded by them to the best Essay on the therapeutical uses of chemically pure beech-wood creasote. Such essays must be sent to them before March 31st, 1873.

DR. IRA RUNSEN, late chemical instructor at the University of Tübingen, Germany, will occupy the chair of physic and chemistry at Williams College, assuming his new duties with the opening term.

Trusses for Pensioners.—Surgeon-General Barnes, U. S. Army, advertises that, in accordance with the Act of Congress, passed at the last session, his department is now ready to gratuitously furnish trusses to all soldiers who were ruptured while in the line of duty during the late war. Proof of the hernia and of the date of its occurrence must be forwarded on the certificate of the examining surgeons for pensions. A Board of medical officers appointed, in accordance with the Act, to determine the merits of samples of trusses, report in favor of the Chase pattern, and also of those submitted by Bartlett, Buttmann and Parker, of Chicago. These patterns have been adopted and a choice is given to every applicant.

The Freedman's Bureau was discontinued July 1st, and all its business matters transferred to the Adjutant General's Department of the Army, with the exception of the Freedman's Hospital and Asylum at Washington, D. C., which was, at that date, turned over to the Surgeon-General, with all the records, papers, funds and property connected therewith. For the support of this institution for the coming year, that is, for the pay of medical officers and attendants, medicines, medical supplies and rations, clothing, rents of hospital and its supplies, repairs and transportation, Congress, at its last session, appropriated seventy-four thousand dollars. No part of this appropriation is to be used in support of any persons hereafter admitted, unless removed there from some other government hospital. After one year, this hospital is to be continued under the supervision and control of the Secretary of War.

An Army Surgeon Righted.—The Post-Surgeon at Fort Sully, Dacota Territory, has found a good friend in the Major-General commanding the Department, who at once saw through the inconsistency of the sentence of a court martial and now reinstates the surgeon. The circumstances appear to be as follows :—About a year ago the surgeon reported to headquarters that a Captain stationed at the Post "suffers so much mental excitement, the result of a gun-shot wound in the head, as to require either the action of a retiring Board, or that he be put under medico-legal restraint." This brought an order for the removal of the Captain to a Government Asylum. For this the surgeon was lately brought before a court martial on the charge that the report was "false, malicious and libellous, and calculated to and did injure the Captain, by causing the publication of the special orders in his case." The court acquitted the surgeon of malice, libel, and conduct unbecoming an officer and gentleman, but found him guilty of writing an official communication which "injured an officer, to the prejudice of good order and discipline," &c., and sentenced him to a deduction of one hundred dollars a month for a year, and confinement to the Fort limits for the same time.

The Major-General reviewing the case, after usual preliminaries, says: "The Court, by its findings, declares the report to have been true (or, at least, not proved to be false), not malicious nor yet libellous, but that it *was calculated to*, and did, injure an officer. These findings cannot be reconciled to each other. Without again going into this question at length, suffice it to say that by excepting the words 'false, malicious, and libellous,' the Court has pronounced this report to have been made without intent to do injury, and from no bad motive." If so, the "Surgeon was simply and properly fulfilling a duty ;" . . . . . "to this duty no criminal responsibility could be held to attach" . . . . . . "Surgeon —— is released from arrest, and restored to duty."

It were well if the profession always had a "reviewing officer" so quick to detect the frequent inconsistency of charges brought against its members, and so prompt to declare it.

The Boston City Council did a good work last week in a sanitary direction by passing ordinances requiring market-men to bring into the city vegetables divested of unnecessary portions, leaves, &c., which are usually thrown from their carts into the streets, to an amount of many cart-loads around the principal markets. On the previous Saturday, according to the Superintendent of Health, twenty-two loads, each equal to two or three common cart-loads, were taken from the vicinity of Faneuil Hall Market alone. The complaint is that in the recent hot weather, with frequent showers, this constantly decaying vegetable matter in the streets has been very annoying, not to say prejudicial to health, and the practice certainly ought to be prevented at all times.

It was also ordered that the Cochituate Water Board furnish East Boston with Cochituate water at the earliest practicable moment. This section of the city has hitherto been supplied by the Charlestown aqueduct which takes its water from Mystic Pond. A member stated, in explanation, that the people of East Boston had for several months been furnished with water in a filthy state; that he had, with others, made an examination of the sources of supply of the Mystic water. In that examination he visited several tanneries where the water for the washing of hides was allowed to flow into the pond, producing an almost incredible amount of filth. There were thirty of these tanneries, and one of them used fifteen thousand gallons of water a day, which he was assured was about the average of the thirty, and the residuum flowed back again to the pond.

The specimen of filthy water which he exhibited to the Council was drawn from his own faucet, and as there was now Cochituate water enough, a better supply should be furnished to East Boston. Some of the water from Russell's Brook had the appearance of the residuum of a kerosene factory, and a person located near there stated to him that the stench was often so great that he was obliged to close his windows.

While looking out for the sanity of the body, that the mind also may be kept healthful—not even provoked to indignation by disreputable acts of the thoughtless or evil-disposed—the Council also passed an ordinance providing for the imposing of a fine in cases where persons walk, stand or lie down upon the grass on the Common and Public Garden at times when the committee of the City Council publicly prohibit such acts.

If now the Council would add to these good deeds another of still more importance and value to every citizen, viz., the watering of the streets at public expense, they would do more for the public health than has ever been done by any measure however important it might have been. Every man, woman and child, that walks or drives through a dusty street, or whose dwelling borders upon one, is constantly inhaling a pulverized compound of granite and dung, disgusting in itself, and in its consequences fearful to contemplate. Furthermore, anyone who will give attention to the subject, will soon perceive that in the wear of the streets themselves, of the vehicles drawn over them, and of the clothing of those who walk through them, there are tangible consequential damages of greater cost to the community than the amount of taxes required for thorough watering, which would save all this expensive wear and tear, in addition to the healthiness promoted by it.

La Creche—The Manger.—Under this title many years ago a charity was established at Paris, for the care of nursing children whose mothers were obliged to go out to daily work for their living. The children could be left at the rooms by the mother in the morning as she went to her work, nursed at noon by her and again at nightfall, after which she took her child with her to her own home. During the day, the babies were taken care of by trained nurses, their necessities attended to, and medical attendance obtained if required. At first this was all free; but, while so, never became popular with the classes it was intended to benefit. Afterwards the small sum of two sous (less than two cents) a day was exacted before the child could be left. This plan worked admirably. The mothers were satisfied, or rather quite pleased, with the arrangement, brought their children very regularly (instead of only occasionally as before); and, in short, the plan worked well, to the great advantage of all for whom it was intended. At present there are one or more of these crèches in every ward of the city.

We are glad to hear that similar establishments are getting into favor in this country, in New York and elsewhere; there cannot be a more useful or unobjectionable charity. In a neighboring city, a trial is to be made on a somewhat extended scale—the taking care of children of an older growth also. We hope the plan will succeed. The enterprise is thus very properly noticed in an evening paper:—

"Downright goodness.—Certain ladies of Hartford have opened a nursery where working people may deposit their children, from three months to eight years of age, and have them well cared for between the hours of 6.30, A.M., and 7, P.M., at five cents per head, the same rate at which we check umbrellas."

To an announcement so full of suggestions further comment is unnecessary.

A Statue to Boerhaave.—The city of Leyden, Holland, has just inaugurated with great pomp a statue of Boerhaave, the great naturalist and physician, in presence of a vast multitude. A deputation from the Academy of Belgium attended, and the flags of that country were seen mingled with the Dutch colors. The monument is eleven feet eight inches high, and stands on a pedestal of ten feet from the ground. The deceased is represented in his professional robe, with a book in his hand, and seems to be either beginning or terminating a lecture.

ARMY MEDICAL SCHOOL IN JAPAN.—Three Prussian medical officers have lately been sent out to establish an army medical school in Japan on European principles. The government has promised them every facility, and is determined that the Japanese surgeons shall, if possible, be rendered equal in knowledge and practical attainments to those of the Prussian army.

THE PLEASURES OF SELLING POISONS.—The Chinese are said to have some severe regulations as to the sale of poisons. The sale of arsenic is strictly prohibited without evidence and witnesses as to the propriety of the sale. According to Dr. Parker Smith, both seller and buyer are decapitated if fatal results ensue; otherwise they are strangled. If a druggist ignorantly or carelessly sells the poison, he receives eighty blows.

CAUSES OF BLINDNESS.—Of 500 cases at the Perkins Institution, South Boston, the causes of blindness were as follows:—Congenital, 37·75 per cent.; due to disease, 47·09 per cent.; due to accidents, 15·16 per cent. The mortality among the blind in that institution was 8·9 per cent. greater than that of the general population of Massachusetts.

INSANITY IN CALIFORNIA.—Dr. Henry Gibbons, of San Francisco, asserts that the prevalence of insanity in that State is a subject of frequent notice. In the State Asylum at Stockton are upwards of 1100 patients. Every day adds to the number, which increases in a much greater ratio than the general population. It is remarkable, also, how large a proportion of the victims come from the muscular stratum of society, men and women of coarse nerve, uncultivated and unrefined.

THE HEAT IN INDIA.—It is said by the *Times* of India that, although the heat in Bombay has not been excessive, it has been terrible in the northwest provinces. Cases of sunstroke have been very frequent; no European can venture out of doors after nine in the morning; and in-doors, life is almost insupportable. Birds and small animals take refuge from the heat inside the houses, and "crows have actually been known to drop off the trees from sheer exhaustion." It is satisfactory to learn that, notwithstanding the great heat, cholera has been neither so widespread nor so fatal as in previous years. Smallpox has, however, committed great ravages, and dengue fever, which the *Times* of India describes as a most excruciatingly painful disease, has been prevalent throughout India and British Burmah.

BARON ITAPOAN.—This title has been conferred by the Imperial Government on Dr. Adriano Alves de Lima Gordilho, Professor of Medicine in Bahia.

Drs. Otho Wucherer, Luiz Alvares dos Santos, Demetrio Cyriaco Tourinho, and A. Le-Roy de Merincourt, of the same city, have been elected honorary Corresponding Members of the Imperial Academy of Medicine at Rio de Janeiro.—*Gazeta Medica da Bahia.*

USE OF ETHER IN IRELAND.—In the House of Commons recently, the Chief Secretary for Ireland was asked whether his attention had been called to the great intoxication in the northwest of Ireland, caused by the use of ether and a mixture of naphtha and ether, sold by chemists and grocers, and whether he was prepared to take steps to put a stop to the abuse, and deter parties who turn their establishments into dram shops.

DEATH-RATE IN THE UNITED STATES AND EUROPE.—It is a curious fact, one well worth knowing, that the death-rate in Europe is nearly double what it is in the United States, averaging yearly one out of every forty-three inhabitants, while here it is only one out of every eighty-one. Of the leading countries of Europe, France leads in its mortality, the average being one death to thirty-two people; and England appears to be the healthiest, the deaths being one to every forty-six. In the United States there is a wide range of difference. In Arkansas, for instance, the annual deaths are one to every forty-nine inhabitants, while in Oregon the rate is only one to every two hundred and nine. It appears that the Northwestern States average the healthiest, and the Gulf States the sickliest.—*Med. and Surg. Reporter.*

Artificial Fecundation. — M. Paul Labarthe describes, in *Le Mouvement Médicale,* an instrument devised by M. Roubaud for facilitating the artificial fecundation of women. It is said that twelve successful cases of this sort have been accomplished by the method advised by Marion Sims, of New York, and Prof. Courty, of Montpellier.

Correspondence.

THE DOCTORS' BLACK LIST.

There came into my hands a short time since a queer little blue covered book, marked "March"—"1872" on the cover. It looked so much like a sermon that I was tempted of a rainy Sunday to look over its contents. There were three texts at the top of the first page, which, without any indication of their origin, so that one could not judge their authenticity, read as follows:—

> "This work will be issued semi-annually, in *March* and *September*.
>
> "*Boston* is to be understood *generally*, in the absence of city or town designation.
>
> "Names in Italics deserve *especial* notice."

The little work contained about thirty-three entire pages of names, and the internal evidence, with some little aid from a member of your profession, Messrs. Editors, led me to believe it to be the Doctors' Black List. Now, Messrs. Editors, I am an earnest believer in statistics, and therefore perused this work with exceeding admiration, as it enabled me to add to the numerous lists of tables by which some day I intend to infer or to prove something. This little book belongs to Boston and its neighborhood. The total number of names in its pages is eleven hundred and seventy-six. Of these, two hundred and eighty-seven, or, to speak more positively and correctly, only twenty-four and four hundred and four thousandths per cent. are indicated as inhabitants of Boston. The remainder not being such, the inference is, and it must be true, that a larger proportion of the inhabitants of Boston pay their debts than outsiders. It is much to be regretted that the birth-places of these twenty-four and a fraction per cent. were not indicated; for, as I understand, a large number, more than a majority, of the inhabitants of Boston were born elsewhere, I have no doubt the corrected statistics would show that nearly all Bostonians by birth pay their doctor's bills. By this I wish to be understood as speaking of Bostonians *proper*, excluding of course those born in the lately civilized districts, formerly known as Dorchester and Roxbury.

But to return to this mass of statistics. The Black List contains the names of Smiths, 14; Hills, 11; Joneses, 10; Johnsons, 9; Taylors and Williamses, 7 each; Morses, Greens and Browns, 6 each; and Whites, 3. From this list a new and useful inference may be derived. Nineteen and one-tenth per cent. only of *colored* people refuse to pay their bills, while the mechanics, as Smiths and Taylors, fail to pay to the extent of twenty-seven and eighth-four hundredths per cent.

On examination of the whole list, I find but one member of Congress refuses to pay his doctor's bill, a fact which is well worth calling the attention of Boston physicians to, more especially as his dwelling place is put down as California. It did not need the searching eye of a statistician to note the superior honesty of the members of the medical profession, but curiosity prevailed, and, on the strictest search, not one physician's name could be found!

Now for residences. All Boston physicians should be gratified, all who purchase the Black List, I mean, at the distinctness with which the skallawags are pointed out, and the impossibility there is in mistaking the actual personage. I thought the patient perusal of this little volume would unmistakably enable me to mark out, in my own line of business, some of those who should not be trusted without security. I forgot to say that my dealing is in peanuts to some considerable extent. Think, then, of the gratification with which I found myself warned that, of these eleven hundred and seventy-six names, no one of whom I will ever trust, so long as I live in Boston, two live in Manchester, N. H., one in Portsmouth, three in N. Y., one each in Tisbury, Pawtucket, Buffalo, Provincetown, Athol, Montreal, New Bedford, Indiana, San Francisco University, Texas, *Cambridgeport or Scotland G. B., Boston or Nassau St. N. Y. or Philadelphia, Cambridgeport or Canada West, Lowell or Detroit.* What a world of trouble this list will save to the members of your profession and mine who chance to possess a copy. One name I cannot easily make out the habitat of. It is put down *Mason St. for. Furs.*

But the matter is becoming more intensely interesting, and fearing to occupy too much space in your valuable Journal, I subscribe myself yours, Statistics.

Medical Miscellany.

Dr. Leonard Wheeler, of Lincoln, Mass., has been engaged as superintendent of the Worcester City Hospital, in the place of Dr. J. G. Park, resigned.

Mr. S. P. Wetmore, of Newport, has given $1000 for the Newport City Hospital.

Extraordinary Fecundity.—Dr. Edw. Mason, of Alabama, recently reported a case of a lady who bore seventeen children in nineteen years—twice twins and once four at a birth. The latter died, but the other thirteen survived.

Mass. Gen. Hospital.—The late Quincy Tufts, of Boston, left by his will ten thousand dollars to this hospital.

Dr. Henry Bartlett.—We regret to record the death of Dr. Bartlett, one of our best known and esteemed physicians. He left active labor in his profession a year or two since, on account of failing health, and one year ago was so seriously ill that his life was despaired of. His last illness had been of some weeks' duration. Dr. Bartlett had for many years a very large practice, and possessed the love of his patients and the respect and confidence of the community in which he lived.

Dr. Franklin Dodge, a prominent physician at Harwich, died last week, aged 63 years. He was born in West Groton. He graduated at Amherst College in 1834, and received his medical degree at Dartmouth College in 1837. For some time he practised in this city with Dr. Doane.

A Medico-Legal Matter.—The arm of the law is longer in England than it is in America, and it sometimes reaches offenders who in this country exercise their nefarious art with impunity. Late English journals contain the report of the trial and conviction under the British Medical Act of a "Dr." John Hamilton, of London, whose only offence was that he took and used the name and title of a doctor of medicine, surgeon, and general practitioner without proper authority. On his lamp, he was "accoucheur," on his brass-plate, he was "surgeon," and on his window he announced "medical advice;" but in the *Medical Register* his name did not appear. The defendant was fined forty shillings and costs, although he possessed an "American" diploma. May not the prosecution of this "American" doctor be made the occasion for the display of some diplomatic rhetoric?

Doctors' Quarrels.—"The Stokes trial being over, the New York physicians are now quarrelling about the cholera." This is from a daily paper. It is libellous; it is a well-known fact that medical gentlemen in New York or anywhere else never quarrel. They sometimes have been understood to "disagree," but never to quarrel.

A curious and perhaps important discovery has been made recently by M. Kletzinsky, a Viennese professor. Noticing that persons sick with the smallpox were often visited by flies, he placed near an open window of the hospital a saucer filled with glycerine. Soon the flies gathered and were caught like birds with glue. In their endeavors to free themselves, the foreign matter which had adhered to them was left in the glycerine, which was at once submitted to the action of a microscope. It was found that this substance, which was chemically pure when offered to the flies, was full of strange cells very like those seen in the vesicles of smallpox, but never on flies. This discovery shows that these insects are not only filthy, but can be very dangerous means of spreading contagious diseases.

Pamphlets Received.—Annual Address delivered before the Medical Association of Central New York, June 18, 1872, by the President, B. L. Hovey, M.D., of Rochester; and an Essay on Asiatic Cholera, by W. S. Ely, M.D., of Rochester. Pp. 12.

Erratum.—On page 53 of last issue, first line, "48°" should be 98°.

Died,—At his residence in Boston Highlands, July 20th, Henry Bartlett, M.D., aged 72 years.

Deaths in seventeen Cities and Towns of Massachusetts, for the week ending July 20, 1872.

Cities and Towns.	*No. of Deaths.*
Boston	237
Charlestown	25
Worcester	42
Lowell	43
Milford	7
Chelsea	10
Cambridge	48
Salem	21
Lawrence	15
Springfield	18
Lynn	15
Fitchburg	7
Taunton	12
Newburyport	0
Somerville	12
Haverhill	9
Holyoke	16
	537

Prevalent Diseases.

Cholera Infantum	219
Consumption	48
Dysentery & Diarrhœa	25
Cholera Morbus	20
Typhoid fever	14
Pneumonia	13
Measles	12

There were five deaths from smallpox in Boston and one in Cambridge. Of the deaths reported as caused by cholera infantum and cholera morbus, one hundred and one were in Boston, nineteen in Salem, nineteen in Worcester, seventeen in Cambridge, twelve in Lowell, eleven in Lawrence, ten in Springfield and nine in Holyoke. Of the deaths from typhoid fever, nine were in Boston. Of the deaths from measles, four were in Holyoke.

George Derby, M.D.,
Secretary of State Board of Health.

Deaths in Boston for the week ending Saturday, July 20th, 237. Males, 118; females, 119. Accident, 3—abscess, 2—apoplexy, 1—bronchitis, 4—inflammation of the brain, 2—congestion of the brain, 5—disease of the brain, 6—cerebro-spinal meningitis, 1—cancer, 1—cholera infantum, 94—cholera morbus, 7—consumption, 16—convulsions, 3—cyanosis, 1—debility, 1—diarrhœa, 11—dropsy, 2—dropsy of the brain, 3—drowned, 2—dysentery, 4—erysipelas, 1—continued fever, 1—scarlet fever, 1—typhoid fever, 9—disease of the heart, 2—hernia, 1—infantile, 1—intemperance, 1—disease of the kidneys, 5—disease of the liver, 1—congestion of the lungs, 1—inflammation of the lungs, 6—marasmus, 9—measles, 3—paralysis, 1—premature birth, 3—peritonitis, 2—scrofula, 2—smallpox, 5—sunstroke, 5—teething, 1—whooping cough, 2—unknown, 5.

Under 5 years of age, 158—between 5 and 20 years, 11—between 20 and 40 years, 41—between 40 and 60 years, 17—above 60 years, 10. Born in the United States, 190—Ireland, 25—other places, 22.

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Original Communications.

ON ARTIFICIAL FOOD FOR YOUNG INFANTS.

By CHARLES P. PUTNAM, M.D. Harv.

Read before the Massachusetts Medical Society, at the Annual Meeting, 1872.

THE main object of this paper is to discuss some of the methods which have been proposed for getting rid of the objectionable reactions of cows' milk which tend to make it an imperfect substitute for human milk as food for young infants.

It has been usual to suppose that attention should be given chiefly to the chemical composition of milk, but the point which is of the greatest practical importance is, that the coagula of cows' milk are hard and lumpy, instead of being soft and flaky like those of human milk.

In order to avoid the formation of these coagula, small quantities of gelatine and starch are useful, although neither of them is directly nutritious, and either would be highly injurious if used in large quantities. The following treatise is far from being a complete compendium of the subject, and is by no means intended to serve as a popular guide.

The food and the feeding of the great majority of young infants happily does not require any interference on the part of physicians. The new-born baby, having been supplied with his only real needs, viz., a bath and a suit of clothes, ordinarily asks for nothing more than an opportunity to sleep for ten or fifteen hours, or if, ambitious to begin active life, he sucks his fingers and demands more serious occupation than sleeping, the breast of his mother stands ready to supply him with the luxury of an unnecessary meal (for a new-born child can never be really hungry), and if only a few drops of colostrum can be drawn from the nipple it answers every purpose, giving the child a chance to use the only organ he knows how to use with skill. The irritation of the nipple from the sucking stimulates the secretion of the breast far better than a stream of electricity, while the whole system of the mother is revived by the pleasure of handling and suckling her offspring. In many cases a baby will wake after its first sleep of twelve hours, let its voice be heard for a few minutes, and, having had a bath and perhaps a spoonful of water to swallow, will go to sleep again complacently and sleep for another twelve hours.

The doctor has in such cases, then, only to warn the mother to accustom her child to taking its meals at regular hours, and to regard nursing not as a means of quieting it, but simply of supplying it with nourishment.

A certain proportion of mothers, however, are either unable or unwilling to nurse their children, and in such cases the want will be best supplied by a hired wet-nurse. Some babies thrive even better with wet-nurses than with their own mothers, but as a rule this is not the case; and it is much to be regretted, on her own account as well as on the child's, when a mother gives up nursing. If she can give only part of the necessary food, it is in general better that she should give as much as she can, supplementing it with artificial food, rather than leave the nursing of her child entirely to a wet-nurse.

There are, however, many objections to the employment of wet-nurses which need not be mentioned here, and many babies are from necessity or choice brought up "by hand," *i. e.* on artificial food. These children require a kind of food resembling human milk as nearly as can be, and the impossibility of finding any food which is as suitable as human milk, would seem to account, at least in part, for the great number of substitutes which are recommended on every side, each one being represented as the most perfect substitute ever invented. Among these are the following:—

Milk diluted with water, either with or without sugar.

Cream diluted and sweetened.

Cream mixed with whey, and sweetened.
Robinson's prepared groats.
Ridge's food.
Alkalized milk (with soda or potash).
Boiled milk.
Condensed milk.
Liebig's malt soup.
Savory & Moore's and other dry preparations of Liebig's soup.
Loeflund's and others' liquid preparations of the same.
Meigs's and Pepper's milk with gelatine and starch.
Flour porridge, oatmeal porridge, corn starch, crackers and milk, and even seedcakes and milk are also very often given to the youngest children.

The diversity of opinion with regard to these preparations shows that the question as to the proper food for infants has not been sufficiently studied, and I shall therefore endeavor to trace out the connecting links between our scientific and practical knowledge of the subject. Physiologists do not tell us as much as we would wish with regard to the digestion of the infant, as compared with that of the adult, but happily the food which Nature provides for babies gives us an invaluable guide in the preparation of artificial food.

Our object, then, will be to supply that food which most nearly resembles human milk in its reaction upon the digestive system of the infant. We must keep in mind that the chemical expression of any substance does not give us the least idea of the characteristics of that substance. Thus, a bit of carbon may be either a diamond or a piece of charcoal, yet no one has succeeded in transforming the charcoal into the diamond. This is epecially true of organic substances. In this way, a combination which contains the same proportion of chemical elements as human milk, may react very differently from human milk on the digestive organism. It is only by bearing this fact in mind that we shall be able to appreciate the difficulties of imitating human milk successfully. Different kinds of casein differ from each other as much as do charcoal and diamonds.

From one point of view, nothing so nearly resembles human milk as the milk of the lower animals (cow, goat, ass, &c.). Goats' milk and asses' milk resemble human milk more nearly than cows' milk, as regards the proportions of the chemical elements, but since both the former are difficult to obtain, and asses' milk is hardly to be had in this neighborhood at all, they do not seem to have any practical advantages over cows' milk, which is at all times easy to get and which will therefore be treated as the type of all.

The following remarks refer only to very young children, especially those less than three or four months old. At the age of six months the time of the greatest difficulties in artificial feeding has passed by.

Cows' milk usually contains, as is well known, much more casein and less butter than human milk, so the following rule for manufacturing human milk was easily arrived at:—Take the upper two-thirds of the milk after it has been standing long enough to allow the cream to rise, dilute it with water and add a little sugar. A very great many children have thriven well on this diet, and in such cases it is by far the most convenient food to give, but it was the failure of it in some cases that led to the manufacture of other preparations, with which the market is now flooded.

It is a common mistake of nurses, and I fear sometimes also of physicians, to believe that starchy substances boiled in milk make a more hearty, that is, a more nutritious food than milk alone. There can be, however, no greater error than to suppose that starch is, to an appreciable degree, directly nutritious. There is, as is well known, no starch in milk, nor any other insoluble hydrocarbon, and the digestive organs of the young infant are not adapted to changing any appreciable amount of starch into a soluble substance. A large portion of the starch ingested by young infants passes through the bowels unchanged.

The bad effects of amylaceous food show themselves not only at the time of dentition, but perhaps more decidedly at a later period, when children often develop symptoms of rachitis. Perhaps the most marked immediate effect is constipation, resulting in dyspepsia and irregular diarrhœa. The starch clogs up the intestines, till a slight catarrh comes to sweep out the hardened masses, after which the accumulating process begins, and again a catarrh gives another period of temporary, and, to a certain extent, natural relief; but this process cannot go on long without causing a very considerable irritation, and the child is fortunate if it escapes merely with distention of the intestines. It is much more likely to have to suffer for a long time with chronic catarrh of the intestinal tract. Let us, then, rid ourselves of the idea that starch is a part of the natural food of infants, and regard it as an entirely foreign substance. This is, however, no reason for refusing to use it in food, if we find that in any way it may be made to assist digestion, and on this point I shall speak later.

On comparing the various chemical analyses of milk, we are struck by the variableness of the amount of casein, butter and sugar contained in the various specimens, a fact which would of itself lead us to suspect that the mere difference in the relative proportions of casein, butter, &c., did not constitute the most important difference between the two kinds of milk.

Thus, the amount of casein has been found in various percentages, varying from 1·2 to 8·9 per cent., while the average is stated at 4·8 per cent. for cows' milk, and from 1·9 per cent. to 4·3 per cent. for human milk, the average being 3·9 per cent.

Liebig's Malt Soup.

Baron Liebig was led to attempt to make an artificial food for young infants by the fact that two babies, both related to him (one of them his own grandchild), were deprived of mother's milk. Both of the children thrived exceedingly well on the newly invented food.

According to his theory, all food could be divided into nitrogenous and non-nitrogenous substances, nitrogenous being used to support and nourish the body, non-nitrogenous to sustain the heat of the body. The latter is supplied in human milk by butter and sugar, and Liebig proposed to make up the deficiency of these in cows' milk by means of dextrine obtained from starch through the agency of malt. As is well known, the starch in grain is changed to dextrine by germination, and when the germinating grain is put with starch and subjected to a gentle heat, the same change extends to the starch. It is too much to demand of the digestive apparatus of the infant to effect these changes in the starch unaided.

Even though more recent investigations have shown that this theory of nutritive and combustible food can only be admitted within very narrow limits, yet this food, as suggested by Liebig, in fact suits babies exceedingly well, and, practically, too much can hardly be said in its praise. It has a sweet taste, and is almost never refused by the babies. Being slightly laxative, it is well adapted to children who are constipated from debility or unsuitable food.

It was observed by a lady who gave a great deal of personal and careful attention to her baby, that though his health improved steadily while taking Liebig's soup, he did not gain flesh nearly as fast as he did with milk. This baby had been brought into a very dyspeptic and constipated state by the injudicious treatment of the monthly nurse, and no attention was spared to improve his condition. Several times Liebig's soup was given up and resorted to again, because he could not get along with cows' milk, and every time the same observation was made. I do not know that this has been noticed in other cases.

Substitutes for Liebig's Soup.

Both powders and liquid extracts are made, for which it is claimed that Liebig's soup can be made from them merely by the addition of milk. I believe, however, that Liebig has never sanctioned any of these preparations. Several powders are made in Europe. The only one that is brought to this country is that of Savory & Moore, who claim that it is recommended by Dr. Lankester and others, and that it is supplied to the royal nurseries of England. Even Victoria has given her recommendation! Perhaps we are not favored with the same quality which is supplied to the princes of England, but certainly that which comes to us is a most disagreeable preparation. It is really no representative of Liebig's soup, for it is full of starch, and contains little if any dextrine. It contains many small fibres of the husks, which must be irritating to the bowels, while most babies do not like it, and it is not well borne by the stomach. Older children can undoubtedly take it, as they can any preparation of starch, but for young infants it is very objectionable.

The only liquid extract which is to be had here, as far as I know, is that by Liebe in Dresden. The taste is more agreeable than that of Savory & Moore's preparation, but by no means as agreeable as that made according to Liebig's direction, directly from the malt. The extract is, however, recommended, as are also the others made in Europe. I have had no experience of them * Some authors speak of the preparation of Liebig's malt soup as being very complicated. This is not practically the case. Any one who has once seen it made, will have no difficulty in making it again.

Condensed milk is a yellowish substance of the consistency of honey, with a very sweet taste. It gives a slightly gritty sensation in the mouth, and under the microscope is seen to be a granular mass crowded with crystals of sugar. (Chiefly cane sugar, partly milk sugar.) The reaction is alkaline. It is made by evaporating fresh, sweetened milk in a vacuum. Whether any alkali is added, or whether it is alkaline because the milk is perfectly fresh when the process of condensation begins, I do not know. When water is added to it, the granular look fades out and globules of butter make their appearance, while the crystals gradually disappear. In the condensed state it does not ordinarily become acid, even when kept in a warm place, but when diluted it does not seem to keep sweet any longer than ordinary cows' milk. It sometimes seems to suit children who cannot take fresh milk. Whether this is due to the fact that being diluted just before using, it is each time equivalent to milk fresh from the cow, or whether its alkalinity makes it more suitable, I cannot say. It was quite evident from the experiments which will be cited that it does not digest more quickly than cows' milk. The taste is agreeable, and, as far as my experience goes, it is well borne by infants.

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* Since this was written an attempt has been made to substitute Liebe's preparation for Liebig's soup at the Massachusetts Infant Asylum, but it was speedily abandoned, as the children who took it had violent attacks of diarrhœa.

An interesting set of experiments by Biedert, of Giessen (Untersuchungen über die chem. Unterschiede der Menschen-u Kuhmilch. Inaug. Dissert. 1869), develops some of the differences between human and cows' milk. This writer comes to the conclusion (purely theoretical, I believe) that a mixture of cream and whey, as recommended by Prof. Kehrer, makes the food which mechanically most closely resembles human milk. This conclusion is drawn from the following facts: While the addition of a few drops of artificial gastric juice to human milk is followed by a precipitation of light feathery coagula, the addition of the same amount of gastric juice to cows' milk causes the precipitation of a coagulum which is large, continuous and hard, and which fills the whole vessel. If the milk be shaken during coagulation the coagula are smaller, but the small coagula do not dissolve any faster than the large ones.

He also reports that the cows' milk had to be diluted with twelve times as much water before it began to coagulate in a manner even similar to the human milk. He therefore concludes that the difference in the amount of casein did not account for the difference of coagulation. Nor was it caused by the different reaction, for acid added to human milk did not make the coagula less flaky, nor did the addition of alkali to cows' milk make the coagula less hard, even when the milk was made strongly alkaline. He maintains that the coagulation set in while the milk was still alkaline. The only effect of the alkali was to delay the coagulation. Other reactions of cows' milk were very different from those of human milk. Excess of artificial gastric juice added to human milk either caused the formation of coagula which were speedily dissolved, or none at all were formed. In this case, when more milk was added, precipitation followed. The coagula of cows' milk, he reports as dissolving much more slowly. He therefore concludes that not pure cows' milk (Küttner), nor alkalized nor diluted milk, nor that protected (Falger) in a milking apparatus from contact with the air, nor Liebig's soup, is the most appropriate food for young infants, but recommends that the milk should stand for twelve hours, when the cream is skimmed off, the remaining milk curdled, the whey mixed with the cream and a little sugar of milk added. That is, he concludes that it is only by removing the casein that we can avoid the unfavorable effects of it.

Having been unable to obtain anything more than a short review of the dissertation in which these experiments were published in detail, I have made use of the kind offer of Prof. Bowditch to go over some of the same ground again at the Physiological Laboratory of the Harvard Medical College. Biedert speaks of the easier coagulation of human milk after it is twenty-four hours old, but does not say anything, as far as I know, about corresponding changes in cows' milk. Cows' milk which is still warm coagulates in much softer lumps than that which has been exposed to the air for some time. Whether these soft coagula dissolve any quicker than the harder ones, I cannot say, as the cow that supplied me with warm milk went into the country before my observations were completed. I am disposed to think that Biedert lays too much stress on the greater ease of solution of human casein as compared with cows' casein. I found that large coagula from cows' milk dissolve much more slowly than the small coagula of human milk, but the smaller coagula made by diluting the cows' milk before coagulation do not have the same advantage over human milk.

I was also unable to confirm Biedert's observation that the addition of an excess of gastric juice had the effect of preventing the formation of coagula of human milk, or of dissolving them as soon as formed. A very large quantity of gastric juice was added to coagula from human milk without dissolving them except after many hours.

It is true that if an excess of hydrochloric acid be added, and the test-tube be shaken violently, the flakes of casein disappear; but in this case the coagula are merely broken up to a fine powder, and are not really dissolved, and the same change takes place without shaking, though more slowly. I shall show later that this is also the case with cows' coagula.

The casein from Borden's condensed milk, diluted to about the density of common milk before coagulation, did not dissolve so fast as the coagula from common milk.

It was found that the preparation, proposed by Meigs & Pepper, of milk with a small quantity of gelatine and starch, coagulated in lumps which were much softer and more flaky than those from pure milk, and the flaky coagula disappeared more rapidly than did the hard from pure milk. At the same time there was no evidence that they really dissolved any more rapidly. It was found that hydrochloric acid (of two per cent. or greater strength) caused all coagula to break up into fine, microscopic particles which give to the fluid again the appearance of uncoagulated milk, so that the fact of the disappearance of the lumps is not enough to prove digestion. If the fluid, in which the coagula has thus been broken up, be allowed to stand, a thick cloud rises to the surface which, at the slightest shake, falls and permeates the whole fluid; but if the casein be not only broken up, but digested, the cloud at the surface is very thin, by no means so white as the undigested one, and only sinks and mingles with the clear fluid after a violent shake, then giving it a translucent, gray look, with no resemblance to the appearance presented by the undigested mixture which is like pure milk. It would seem that where the casein is undigested, enough fat remains in connection with the fine particles of coagula to make it tend to the surface, although it can be shaken down very easily, but when the casein is digested, the fat rises to make a thin layer at the top, which, being much lighter than the fluid, is shaken down with difficulty. Casein from cows' milk does not, then, dissolve more slowly than the same amount of human casein, and it would seem, therefore, highly probable, that the casein of cows' milk is not objectionable because it is indigestible, but because it is naturally hard and irritating, and our object should be not to take it away from infants' food, thereby depriving the food of the only part which contains nitrogen, but to endeavor to keep it in the food and make it less irritating to the bowels.

In healthy children fed at the breast, the intestinal mucous membrane is never touched by anything hard. The coagula of human milk never contract into hard masses, and the natural dejections are not harder than hasty-pudding, though they are perhaps not more free from casein than many discharges of children fed with cows' milk, where the bowels are irritated by the hard lumps of casein. It does not necessarily follow that more casein of human milk is absorbed than of cows' milk, so long as the bowels still remain in a healthy condition, although from cows' milk we may find lumps of casein from the size of a millet seed to that of a pigeon's egg. The healthy discharges of nursing infants also contain large amounts of casein (Wiederhofer), (Emile Allix, Paris, 1867, fat fifty-two per cent., bile pigment with fat sixteen per cent., coag. *casein and mucus eighteen per cent.*, fluid and waste sixteen per cent. [after Simon]). It is in order to make the reaction on the bowels, of cows' milk, more like that of human milk, and not with any idea of giving direct nourishment, that Meigs & Pepper recommend the addition of a small quantity of gelatine and starch, and the experiments above cited would seem to confirm this idea. Their process is as follows (Meigs & Pepper, Diseases of Children, p. 304):—

"A scruple of prepared gelatine (or a piece two inches square of the flat cake in which it is sold) is soaked for a short time in cold water and then boiled in half a pint of water until it dissolves, about ten or fifteen minutes. To this is added, with constant stirring, and just at the termination of the boiling, the milk and arrowroot, the latter being previously mixed into a paste with a little cold water. After the addition of the milk and arrowroot, and just before the removal from the fire, the cream is poured in, and a moderate quantity of loaf sugar is added. The proportions of milk, cream and arrowroot, must depend on the age and digestive power of the child. For a healthy infant, within the month, we usually direct from three to four ounces of milk, half an ounce to an ounce of cream, and a teaspoonful of arrowroot to a half-pint of water. For older children, the quantity of milk and cream should be gradually increased to a half or two-thirds milk, and from one to two ounces of cream. We seldom increase the quantity of gelatine or arrowroot."

RIDGE'S FOOD.—PREPARED GROATS.

Both of these are of service if used for the purpose just mentioned in very small quantities. As food proper for young infants they are useless and injurious, being merely fine preparations of grain entirely deprived of the husks. When treated with iodine, under the microscope, each particle becomes intensely blue. Ridge's food is supposed to be made of wheat. The barley from which Robinson's groats are made, is supposed to be useful in as far as it contains more of the salts which are necessary to human milk than do other grains.

Farina, maizena and corn starch (which are different names for the same thing) may be used in the same way, their only disadvantage being that they easily become rancid, and contain but little gluten, while, of course, they are subject to the objection raised against all forms of starchy food, that, if used in too large quantity, they cause constipation, with its attendant train of troubles.

Cows' milk alkalized with bicarbonate of soda or potash, is less often vomited than pure cows' milk, and under its use the dejections contain fewer and smaller lumps of casein ; but this is not because the coagulation is put off for a very long time. The milk is speedily acidified by the gastric acid which is continually secreted in the stomach, for hard coagula in an acid fluid are often vomited in a few minutes after a meal of alkalized milk. Probably the alkali, by neutralizing the acid temporarily, prevents the too rapid coagulation of the whole mass, and thereby prevents the formation of very large coagula.

Biedert's observation that the coagula of alkalized milk were formed later, but were just as large and hard as those from acid milk, is not really opposed to this idea, for the test tubes used in Biedert's experiments were kept perfectly still, while the contents of the stomach are continually in motion.

Among the poorest people in Boston, one of the most common articles of food for young babies is seed-cakes and milk. The aromatic seeds are supposed to act as a carminative, and to make this form of food peculiarly suitable in cases of colic. The poor victim screams with stomachache, but his screams are only considered cries of hunger, and all he gains is the undeserved epithet of a greedy fellow and another spoonful of seedcake and milk.

No form of pap or porridge is suitable for children under six months. Porridge made of fine flour is very constipating and causes collections of hard fæces in the bowels, which are carried off naturally from time to time by an attack of diarrhœa. Oat meal is not so liable to constipate as much as fine flour, because the irritation caused by the husks of the grain stimulates the bowels continually. Even this irritation will, however, be too severe for the tender mucous membrane of young infants, and be the cause of an annoying chronic catarrh of the bowels. Its action on young babies is also very irregular and uncertain, and not at all as satisfactory as that produced on the digestive apparatus of older children and adults.

Drinks for children of arrowroot, sago, &c., are probably useless, except for the infinitesimal amount of nourishment which they contain, which is worth no consideration. On the other hand, an infant should not be allowed to suffer from thirst. Cool water is often taken with avidity, and after an obstinate attack of crying, a few spoonfuls are often enough to quiet the child completely.

Let us, then, bear in mind that the only proper food for a new-born baby is the milk of its mother; that her place is best supplied by a wet-nurse; that the great obstacle to the use of cows' milk is not the insolubility, but the irritating character of its coagula; that this may be avoided to some extent in many ways, among others by the addition of a little starch and gelatine for the purpose of effecting a mechanical separation of the particles of coagula; and, finally, that for any other purpose starch and gelatine are never to be used.

24 *Marlboro' Street.*

THE CIRCULATION IN SEA-SICKNESS.

By James J. Macdonald.

In an article which lately appeared in the *British Medical Journal,* the writer, Dr. Alderson, offers a theory for the explanation of sea-sickness, based on the changes which are said to take place in the circulation of the blood in consequence of the tossing of the ship, and on the effects of these changes on the brain. That an abnormal condition is produced in the brain in consequence of disturbed circulation is unquestionable. That the motion of a ship causes such a disturbance is doubtless true, and that sea-sickness is a result of this disturbance may also be true ; but the reasons given to explain this abnormal condition seem very imperfect and unphilosophical. It will be evident upon consideration that the effects produced are not the result of the causes which he assigns.

The statements upon which the theory is

based are as follows: "If a barometer be carried out to sea in a calm, the mercury will rest at the same height as when on shore; but when the ship falls by the subsidence of the waves, the mercury is seen apparently to rise in the tube which contains it." And again, "anyone who has carried a mountain barometer, and has happened to let it descend suddenly, must have been sensible of a concussion of the mercury against the top of the tube, and must have felt and heard the blow. In fact, the mere action of walking is sufficient, by the alternate rise and fall of the hand, to produce this effect." This effect he explains thus: "When the rigid tube falls, the mercury having its own inertia, and not being attached to, or a part of, the tube, remains stationary—at least for a time; thus the tube is pushed down upon or over the mercury, and the concussion takes place." He then says, "exactly the same occurs between the brain and vessels on the one part, and the blood on the other. The approximately rigid brain and vessels are carried downwards, the blood remains by its own inertia, and the consequence is to crowd blood into the vessels of the brain, and so press with increased force, producing a certain shock; this shock and the attendant pressure produces sickness and vomiting." He adds a quotation from Dr. Wollsaton that "sickness by swinging is evidently from the same cause as sea-sickness."

This inertia of the blood, then, is the only cause assigned for the congestion or shock of the brain, and the only reasons advanced to prove the existence of such a congestion are, the peculiar kind of vomiting which takes place, the unpleasant sensation accompanying the forward motion of a swing—for then, he says, the blood has the greatest tendency to move from the feet towards the head—and the fact that inspiration during descent gives relief by assisting the return of blood from the brain.

To show that inertia of the blood is not the cause of congestion of the brain, a brief allusion to the natural laws involved in the matter will first be in place. When mercury in a tube is prevented from falling to the earth, it presses down upon the body which sustains it; this pressure is equal to the force of its attraction by gravity and is its weight. If the tube be dropped, it no longer sustains the mercury whose pressure upon it instantly ceases. If the tube be suddenly stopped in its descent, there will be an immediate pressure on it of the weight of the mercury and, in addition, the momentum which it has acquired during its fall. If again from being stationary it is suddenly pushed upwards, there is an increased pressure on the tube. To illustrate this, let a ball suspended by an elastic rubber band represent the mercury, and the rubber band the tube, if the hand from which the ball hangs be suddenly raised, there will be a greater strain on the cord which will be stretched in consequence, because a force which raises the ball must be greater than that which merely prevents it from falling. Now in the case of a tube partly filled with mercury, if a force in addition to that of gravity causes its descent, the mercury being free, will, though falling towards the earth, rise in its relation to the tube, being impeded only by friction against the sides; under no other condition will it rise, except, when simply falling, the pressure of the upper on the lower layers being removed, it may, in virtue of its elasticity, expand to an infinitesimal degree. By remembering that the force of gravity will, other things being equal, draw all bodies to the earth with equal velocity, and by also reflecting that on a swing or a ship no force is causing the descent, but that of gravity, it will at once be evident that the blood in the vessels cannot be supported by inertia, any more than the rest of the body, and, consequently, that its relation to the containing vessels, will, as far as gravity is concerned, be the same, except that its weight is no longer sustained by them. This briefly, as effectually, disposes of the supposition that inertia of the blood causes congestion of the brain.

Before considering the abnormalities induced in the circulation by the rise and fall of a ship at sea, I will briefly allude to its natural condition. The heart, in forcing blood to the brain, has to overcome a downward pressure exerted by the column of blood above it. At the same time, the returning current of venous blood is accelerated to a degree, the equivalent of the resistance to its ascent; these two effects, then, may be said to balance each other. It is the same with the circulation below the heart; gravitation assists the downward current and opposes its return. Now if the body, when erect, be allowed to drop, the blood is no longer pressed downward in relation to its vessels by gravitation, because the vessels themselves descend with equal rapidity. In this condition the heart has to overcome no weight of blood above it; hence, owing to this diminished resistance, the blood will be propelled upwards with increased force; at the same time the downward venous current, having no longer the assistance of gravity, would tend to become more sluggish, and must depend entirely for its flow on the *vis a tergo*. This pressure from behind, and the resistance to the venous flow, being both greater than normal, the pressure on the cranial vessels must be much increased, causing distention and congestion. In the part of the body below the heart, the descending arterial and ascending venous blood is affected in like manner. If the vessels were inelastic tubes the difference would equalize each other; but they are, on the contrary, very elastic, and under normal circumstances are distended by the weight of this contained blood, as well as by the impelling force of the heart. Now, however, the latter cause alone operates; and, as a conseseqence, they are to a certain degree contracted; the immediate result of which would be an acceleration of the venous current and resistance to the flow of arterial blood, and a final arterial obstruction alone. In other words, there is an anæmia in those dependent parts whose vessels normally sustained a weight of blood, and a hyperæmia somewhere else. This impediment to the circulation below the heart would tend to increase the fullness of the brain, and also of the lungs. A hyperæmia of the lungs would explain the "instinctive deep inspiration" during descent, which Dr. Alderson attributes to another cause, for an increase of blood would demand an increased amount of air for its oxygenation.

Besides the above conditions, there is also another cause operating to produce a "shock" on the brain. When the descent of the body ceases, and it commences to rise with the ship, the weight of the blood, as well as the momentum acquired by its fall, must increase to a considerable degree the pressure on both arteries and veins, distending them, and causing a congestion which would be most marked in the lower parts, with a consequent partial anæmia of the brain. When the ship again falls, the excessive pressure on the lower vessels is removed; they contract on their contents, become comparatively empty, and the upper parts are again suddenly overfilled. The abnormal pressure on the lower veins, which are the peculiar seat of varicosity, would here naturally suggest the inquiry as to whether sailors are particularly liable to this disease, if indeed it may be caused by pressure.

The reasons here shown for a congestion and shock of the brain, and the changes described in the general circulation, must necessarily be modified by many causes; for example, the extent and rapidity of the rise and fall of the body, the tortuosity of the bloodvessels, and many variations which might occur in the propelling power of the heart, or in the condition of the vessels; as, for instance, venous congestion of the heart, impeding its action, or a vascular constriction through nervous influence. It is impossible to determine, theoretically, the extent of these modifications. The actual state of the circulation in such cases, being subject to so many varying influences, can only be accurately demonstrated by experimental observation. If sea-sickness is really caused by the abnormal action of blood on the brain, the public is indebted to Dr. Alderson for calling attention to the fact, and a trial of the remedy suggested by him will doubtless prove very beneficial.

Harvard Medical School, June, 1872.

Reports of Medical Societies.

SELECTIONS FROM THE RECORDS OF THE OBSTETRICAL SOCIETY OF BOSTON.

SECRETARY, W. L. RICHARDSON, M.D.

JAN. 13th, 1872.—*A Case of Labor in which Long Forceps, Turning, Craniotomy, Decapitation and Cranioclasm were each, in turn, resorted to before Delivery was effected.*—Dr. Sinclair reported the case.

"Mrs. ——, æt. 38, married seven years, in her first pregnancy, having a long body, short lower extremities, fleshy, strong and active, never sick, was seized with slight labor pains and a considerable *show* early in the evening of December 8th. These pains continued at intervals, from ten to fifteen minutes, for the next twenty-four hours, without any descent of the fœtal head. She was then examined, under ether, by Dr. Read and myself. Although a pretty sharp sacral promontory and an unusual firmness of the fœtal head were found, yet there appeared nothing to warrant immediate interference, as the pelvic cavity seemed sufficiently large. The os was soft and dilated, so that the hand could be passed into the uterus. An opiate was given, hypodermically, which averted the pains for some hours, with the hope that on their return they might be sufficiently strong to effect delivery. Tolerably strong labor pains did recur as expected, but failed to push the fœtal head into the pelvic inlet, but pushed it over the pubes, against which it impinged on every pain. During the interval of pain the head could be felt above the brim and quite mobile. This state of things lasted four full days, the patient, meanwhile, continuing in the most admirable condition of health, strength and spirits, with vaginal secretion abundant, and os uteri dilated. At this period, the membranes ruptured during a pain. Soon after, the uterine contractions became more vigorous and frequent, and a slight attempt on the part of the head to engage itself in the brim was perceptible. In this way, eleven hours more passed, when it was evident that delivery by the natural process was impossible. Dr. Read was again sent for in consultation.

"The patient was etherized and forceps applied with difficulty. The fœtal head lay in the second position above the brim, a hand on the left side. The strongest traction was made without effect and the instruments were withdrawn. Turning was then resorted to, but, although the patient was deeply etherized, the uterus was so firmly contracted about the child that this means of delivery was for the time abandoned. Never before came under our observation a uterus so rigidly contracted; although the patient was fully etherized, it continued as unyielding as a vise. The slightest attempt to enter the uterus was resisted by violent spasmodic contraction, extending to the vagina, which embraced the hand and wrist nearly as tightly as the womb itself. The child was dead. Craniotomy was next attempted, but the high position of the fœtal head (a small segment only of the cranium being engaged in the brim), its firmly ossified bones, the vaginal contractions and the mechanical difficulty which stood in the way of successfully puncturing the skull, rendered this effort also a failure; the perforator could not be introduced in a line with any diameter of the cranium. It is scarcely credible theoretically, that the simple operation of craniotomy could not be performed in this case, but practically it was ineffectual.

"The means of delivery were being exhausted, and recourse was had again to version. After an hour or more of hard work, a foot was seized, and by means of external and internal manipulation the body was made to rotate so far that an extremity was dragged beyond the vulva, when it was secured by a piece of strong linen towel and pulled upon by the combined efforts of us both. The opposite and flexed extremity was dragged upon by a blunt hook inserted in the groin. The lower extremities being disengaged, the body and upper extremities gave little difficulty comparatively, although the blunt hook was required to free an arm. So far matters were tolerably promising, but when the fœtal head came to the brim, it could not be made to descend further. Traction on the child's body separated the spinal column at about the junction of the cervical with the dorsal vertebræ. In order to give more room, the child was severed from its head as high up as possible. The head rolled about in the uterus, but was sufficiently manageable, for it could be fixed by the hand externally while several openings were made in it and the brain evacuated, but so firm were the bones that no collapse took place. Again and again the sharp hook was inserted into the most available places; pieces of bone were broken off and removed, but still delivery was delayed. At this stage of the labor, Dr. Read's strength and my own gave out, and we sent for Dr. Cheever. It was, moreover, ascertained that the base of the skull offered the chief resistance to delivery, and that must be broken up by the cranioclast. After a good deal of trouble this instrument was applied, and after some pulling and much crushing the imprisoned head was liberated, to the great relief of us all. The delivery consumed six hours, and was the most difficult we ever met with.

"On suspension of etherization, the patient very soon recovered her consciousness and spoke with those about her; but she complained of want of air, of a feeling of suffocation, which continued for more than an hour. She took food, and appeared pretty comfortable when visited several hours after her delivery, although her pulse and respiration were rapid. It did not seem possible, however, that she could rally from an ordeal so terrible. She slept a little, and was quite intelligent until within a few hours of her death, which took place about 4, A.M., the following morning. No adequate idea of the many difficulties in this terrible case can be given by any verbal or written description."

Dr. Sinclair said that the promontory of the sacrum in this case was somewhat more than usually prominent, and there was also slightly increased angularity of the pelvic arch; but there did not seem to be much diminution of the antero-posterior diameter.

Dr. Read, who assisted Dr. Sinclair, said he did not detect anything very unusual at the first examination, but subsequently he noticed the abnormal projection of the promontory of the sacrum. The contractions of the uterus and vagina were very powerful, and painful to the hand, and these, together with the sacral projection, the pubic angularity and the "ossification" of the head (the fontanelles being entirely obliterated), caused the labor to be one of the most terrible he had ever witnessed. The head could not be made to enter the brim at all; it slipped forward over the pubic arch so that the forceps could not be fairly applied, consequently nothing could be effected with that instrument.

Dr. Fifield asked what form of perforator was used—straight or curved?

Dr. Sinclair replied that the common straight instrument was used.

Dr. Fifield asked in what part of the head the "hold" was obtained.

Dr. Sinclair replied everywhere.

Dr. Read thought that the chief entrance was in the right temporal region.

Dr. Fifield asked if it was impossible to perforate in the occipital region.

Dr. Read replied that it was not, so far as he knew.

Dr. Fifield said that he thought that success in extracting the head after perforation, often depended upon the point and line of traction; he should not try to make the chin descend, and traction should not be made in that line. He mentioned two cases in which traction from the internal occipital protuberance succeeded after delivery by this method had been considered almost impossible. He also thought that if it were possible to take hold of one of the malar bones, the chin became flattened, and delivery could be effected. There was nothing in the history of this case to show that the pelvic contraction prevented delivery, and such being the case the obstruction must have existed in the muscular contractions. He did not think that the evacuation of the brain, in itself, did much in aiding delivery. He mentioned a case to which he was called, in which rupture of the uterus had occurred, and the child had escaped into the abdominal cavity. He went some distance for his instruments; he passed his hand into the cavity of the peritoneum, got the feet and brought the body down, but could not deliver the head. Perforated and evacuated the brain, and labored for two hours, but could not succeed in completing delivery. Finally, he fixed the crochet in the internal occipital protuberance, and delivery was accomplished almost instantly. It had occurred to him that there might be some danger in this method of traction, as the crochet might perforate the occiput and wound the bladder.

Dr. Buckingham asked whether the severe contractions commenced before manual interference was begun.

Dr. Sinclair replied that they did not.

Dr. Abbot asked if the sutures of the child's head were "ossified."

Dr. Sinclair said they were not; but the bones were hard and thick.

Dr. Richardson spoke of Braun's trephine perforator as being specially adapted to such cases, in consequence of its vaginal curve.

Hæmorrhage after Abortion.—Dr. Fifield reported the case.

Abortion occurred at the third month. The woman flowed for two weeks. The next two weeks there was no flowing. At the end of this time hæmorrhage again commenced, and continued for two months, at the end of which time the patient was seen by Dr. F. Although she had been under medical care a portion of the time, no vaginal examination had been made, which led Dr. F. to report the case. Gallic acid had been given. She was now much debilitated; pulse feeble; palpitation of heart; uterus somewhat enlarged and retroverted. Ergot was given, and cold water injections administered per rectum. She recovered rapidly.

Bright's Disease with Pregnancy.—Dr. Fifield reported the case.

The patient was a young woman in the country, and was seen in consultation. The case had been diagnosticated as rheumatism by her first medical attendant. The gentleman next in attendance, whom Dr. F. met, told him that the diagnosis was settled —"typhoid fever followed by pneumonia." The woman was now six months pregnant. Pulse 100; temperature 96°; sordes on teeth and gums; crepitation at base of left lung; albumen in the urine. She had vomited for the last two months, but there was no œdema. Dr. Fifield advised premature delivery, which was accomplished the same night. The child lived six or eight hours. The mother recovered.

Dr. Wellington asked in regard to the cause of hæmorrhage in the first case.

Dr. Fifield replied that it was a case of subinvolution of the uterus.

Dr. Abbot asked Dr. Fifield what directed his attention to the kidneys in the second case.

Dr. Fifield replied the sordes together with some of the other symptoms—particularly the temperature, absence of physical signs of pneumonia, &c.

Dr. Abbot asked if there was any odor of ammonia in the breath.

Dr. Fifield replied that there was not, but that he had seen cases in which it was very marked.

Tedious Labor from Mal-presentation; Delivery by Forceps.—Dr. Wellington reported the following case, seen in consultation. The patient had been in labor four days. For the first two or three days of this time she was in charge of an irregular practitioner. The head had entered the pelvis transversely, with the face to the right, and came down to the perinæum without rotating. Dr. Wellington found it near the outlet, with the face still to the right. As no progress was being made, delivery was effected, without much difficulty, with the forceps, by the attending physician, one blade being applied over the forehead and the other over the occiput. The woman suffered subsequently from retention of urine, and at the end of a week after delivery, pus appeared in the urine. He had seen two cases within a year in which the head was delayed, and pus appeared in the urine at the end of a few days, attended by pain in the hypogastrium and vesical tenesmus.

Dr. Lyman inquired whether there was any attempt to rotate after applying forceps.

Dr. Wellington replied that the attending physician attempted to rotate, and had made the attempt previous to the application of forceps, but without success.

Dr. Abbot said that he had seen a case of pelvic cellulitis following difficult labor, in which pus was discharged with the urine. There was a tumor above the pubes extending from the median line several inches to the right. He thought that an abscess had opened into the bladder. The patient also had cystitis, but recovered after a long illness.

Dr. Fifield referred to the cases that had been reported in which entire casts of the vesical mucous membrane had been thrown off.

Vaccination of newly-born Children.—Dr. Lyman asked in regard to the practice of gentlemen in respect to the time of vaccinating newly-born children when variola was prevalent.

Dr. Minot said he once attended a woman in labor, whose husband was ill with varioloid at the time. He vaccinated the child on the day of its birth. Soon after the vaccine disease was at its height, varioloid appeared; there were six or eight papules only, and scarcely any constitutional symptoms.

Medical and Surgical Journal.

Boston: Thursday, August 1, 1872.

INFANT MORTALITY.

The time of the annual massacre of the innocents is upon us. With the return of the mid-summer heat, recurs the scourge which decimates the infancy of the cities, relentlessly choosing as its special victims, the children whose existence dates since the last autumnal equinox. Coincident with the hot term, the increased fatality, as shown by the weekly death-reports in the towns and cities, may well represent the relative temperature. Whether we call the epidemic cholera infantum or by some more exact and distinctive title, the figures which from season to season show the sacrifice of infant life from the intestinal diseases of the summer months are frightfully suggestive and raise the wish if they do not point out the way for some interposition to arrest the destruction.

The topic is an old one; but it does not lose in interest or importance with its age. The statistics of infant mortality in the summer months are no less impressive than they were years ago; rather, they become more so with their yearly increase. The last annual Registration Report of Massachusetts indicates that cholera infantum was for that year (1870) the second in the list of the fatal diseases in this State, standing next to consumption and in a position of deadliness it never before occupied; it shows, also, that the percentage of mortality from the infantile enteric diseases is increasing to a degree which may well excite alarm.

These ungarnished facts need no sentimental coloring to enforce their import. We leave it to the moralist and the philanthropist to indulge in the homilies and to point the social lessons which these significant reports of the registrars of our cities suggest. The public demands of us, as physicians, to find some way to stay, if possible the fatal tide, to show the means by which the fearful mortality may be prevented. The fathers and mothers of these scores of children who die every week not only ask us why we do not restore their little ones who sicken, but their common sense puts upon us the responsible guardianship of the public health, and insists that we shall indicate the preventive as well as the curative measures. We may not view the matter with the cool indifference of Malthian speculation; the profession, as a body, has not yet reached that fatalistic degree of expectancy in its theorizing which accepts results as inevitable, and sees in the wholesale mortality of children a natural provision for the restriction of population within proper limits.

It is lamentably discouraging, indeed, that the lessons which have been taught over and over again by medical men with regard to public hygiene are so slowly learned, so stupidly applied in our cities. The cautions which have been reiterated in former years that public cleanliness promotes public health, that filth is one of the strongest and most faithful allies of disease, appear in the main to have fallen on listless ears, and, judging by results, no practical, earnest effort is made to take seasonable advantage of the repeated warnings. Against this municipal indifference, the emphatic facts contained in the weekly mortality reports make an appeal which medical testimony is prepared to confirm. The majority of the three hundred deaths from cholera infantum in this city last month tell of the prostrating effects of the prolonged and extraordinary heat and of the debilitating influence of poverty, conditions which are both irrremediable; but they also tell a terrible story of municipal neglect, a story of overcrowded tenement houses, of reeking courts and alleys, of filth in every form allowed to gather and exhale its pestilential stenches in unventilated corners. Mankind cannot well tolerate such a condition and live in health; and the youngest and the feeblest—the children, whose power of resistance to the depressing influence is the least, succumb the soonest.

This wholesale filth, on the ground and in the air, is, to a degree, preventible. But the remedy rests not with physicians who see the results and sign the death-certificates. Here is work for a vigilant, active, efficient Board of Health, whose executive powers are properly defined and wisely endowed, and whose members are selected as regards their character and numbers, with a view to their responsible functions and not for political manipulation. Such a Board would find enough to do in our city, and the Aldermanic dignity would be spared the disagreeable necessity of attending to such trifles in season and out of season.

Of perhaps equal importance with the conditions of dirt and over-crowding to which we have alluded as, in a measure, remediable causes of disease and death, and to be corrected so far as may be, because, in every respect, they are bad in themselves, the matter of insufficient and improper food is a very essential factor in increasing the summer mortality of infants. It is a subject concerning which physicians ought to feel themselves particularly responsible. The full discussion of the subject which is presented in Dr. Putnam's elaborate paper leaves little more to be remarked. It is a fact well recognized that artificially fed children are reared with the odds against them, a fact attested by the myriads of contrivances which inventive skill has presented for supplementing and supplanting the natural aliment. This search after the most perfect substitute for mothers' milk is stimulated by a shameful practice, less common, we believe, in our own country than abroad, yet too prevalent here, of weaning children at their birth, and subjecting them to a course of diet as varied as it is improper. We wish we could believe this inhuman custom in the interests of fashion and of social enjoyments were on the decline. The habit of leaving the diet of children to the judgment of untrained nurses, who are forever desirous of giving them something "hearty," entails an indescribable degree of peril to infant life, and the wonder is that digestive organs so sensitive to the almost imperceptible changes in the quality of maternal milk can even tolerate the first stages of the gauntlet of indigestibles which is forced upon them. Let physicians emphatically protest against the villainous practices of "experienced" nurses, so-called, and avert the perils inevitable with the catnip, the molasses and water, and the other more unmentionable mixtures which are crammed down the throats of newly-born babies.

Dr. Putnam's essay illustrates, besides its obvious practical bearings, the obligation which clinical experience is daily incurring to experimental research. The idea has, of late years, been developing that all amylaceous food is harmful to nursing infants; but the chemist and the microscopist demonstrate with distinctness not only that starchy diet in a certain amount is not hurtful, but they show, also, just what quantity will, if added to artificial food, assimilate it to the natural nutriment. Thus closely are scientific observation and practical experience allied and mutually dependent.

POISONING BY VANILLA.—A physician in Worcester County, in this State, in speaking recently of the cases of poisoning by vanilla flavoring, reported in the JOURNAL of June 27th last, and of the omission in that report of any mention of the symptoms shown in the cases, stated that in his own family evident and violent poisoning from a similar cause recently took place. As in the instance referred to, the sickness came on after eating custard flavored with vanilla. Five members of the family were affected, all of whom had partaken of the custard, and two who had not eaten escaped. The symptoms were severe diarrhœa, with violent pain in the lower abdomen, without much gastric disturbance.

VACCINATION IN CHINA.—M. Martin, Physician to the French Legation at Pekin, has published a series of papers in the *Gazette Hebd.* of Paris on Chinese Medicine. The facts and remarks are very interesting. As to vaccination, M. Martin states that its use is pretty general in the seaports, although it penetrates with difficulty into the interior. The mandarins, however, who perceive the benefits of Jenner's discovery, favor the spread of vaccination, and they succeed by persuading the people that it has been imported by Mussulmans or discovered by the Emperor. The latter assertion is all-sufficient.

From Continental Journals.

STRANGULATED HERNIA REDUCED BY TAXIS AFTER PUNCTURE OF THE INTESTINE.—At a meeting of the Académie de Médecine held May 21, 1872 (*Jour. de Méd. et de Chir. Prat.*, June, 1872), M. Demarquay exhibited a young man in whose case the operation was attempted of puncturing the strangulated loop of the intestine, and removing the liquid and gas contained therein. The patient, who had been the subject of a congenital inguinal hernia, having passed the day in company with his family at Versailles, had become quite fatigued, and in the course of the evening was seized with severe abdominal pains, attended with vomiting. At the same time, he became aware of the presence of a swelling of considerable volume in the left groin. As the pain and vomiting still continued on the following day, a physician was summoned, who advised his immediate removal to the hospital, where he was admitted at 6, P.M. Here the tumor appears to have been subjected to a pretty vigorous manipulation by the *interne* on duty, who, failing to effect a reduction, contented himself with making an application of ice. The patient passed a wretched night, and on the following day the symptoms were all aggravated. The tumor had now increased in volume and become elongated, so as to rest in immediate contact with the testicle. M. Demarquay, not having previously met with very good success in operating for strangulated hernia, attempted to effect a reduction by means of taxis, but without any result. He then decided to remove the liquid and gas contained in the intestine. A small trochar was therefore introduced into the centre of the tumor, and the liquid contents of the strangulated portion of the gut entirely drawn off by the aid of the *aspirateur*. In this manner about 120 grammes of liquid were withdrawn, besides a considerable amount of gas. The swelling at once subsided completely. The trochar was then withdrawn, and the intestine left to itself for a few moments, in order to see if additional liquid and gas would find its way into the loop, and thus cause the swelling to return. As there was no indication that the intestine would be refilled, a very slight amount of pressure was applied to the seat of the tumor, which at once caused the strangulated intestine to withdraw into the abdominal cavity. The patient was confined in bed for several succeeding days, and kept under the influence of small doses of opium. He made an excellent recovery, without exhibiting any subsequent symptoms, with the sole exception of inflammation of one testicle, the result of the repeated manipulations to which he had been subjected. This operation of puncturing the intestine to facilitate reduction by taxis has now been attended with favorable results in several instances, and is worthy, therefore, of a trial in those cases in which sufficient time has not already elapsed to allow of mortification.

In the following number of July are published two additional cases of strangulated hernia successfully treated according to the method of Demarquay above described, by puncture and pneumatic aspiration, and reported by Dr. Chauveau, of Courtelain.

N.

CONTRACTION OF THE SARTORIUS FOLLOWING A RUPTURE.—M. Fleury, of Clermont, has recently reported a case *(Jour. de Méd. et Chir. Prat.*, June, 1872) of contraction of the sartorius muscle occurring in a young woman 27 years of age, sufficiently robust, but subject to attacks of rheumatic pains. Having stooped over to light a fire, she was about to arise when she felt something give way with a crack in the fold of the left groin, so that she was unable to get up. Three weeks after the accident, she entered the hospital at Clermont. Upon examination, the circumference of the left thigh was found to be about one inch less than that of the right; it was, moreover, flexed upon the pelvis, and could not be extended. Upon feeling of the limb, a contracted tendon could be distinctly felt, having its origin at the anterior superior spinous process of the ilium, and extending to the middle of the inner aspect of the thigh. The contracted muscle was not the seat of pain, but became firm and tense whenever the attempt was made to extend the limb. To overcome the deformity occasioned by this lesion, the tendon of the sartorius was divided just beneath its point of origin at the anterior superior spine of the ilium, and the limb was then forcibly extended without occasioning any great amount of pain. At the end of ten days the woman was able to go about, although the limb had not yet recovered its former strength. N.

PASSAGE OF A FORK FROM THE STOMACH TO THE THIGH.—Some of the most anomalous surgical cases have been the result of injuries self-inflicted by persons suffering from some form of dementia. Dr. Le Tellier reports *(Journal des Connaisances Med.-Chir., Allg. Med. Cent. Zeitung,* April 24th, 1872) a case of a woman living at Javerney (Haute Saône) who became partially insane at the age of 30, after which she resorted to various methods to destroy life, which led her on several occasions to try the effect of swallowing a *fork*. The first experiment with this instrument appears to have been made in January, 1836. She was found by the surgeon with the handle of the fork in the œsophagus and the iron points firmly imbedded in the hard palate. The foreign body was removed, not without considerable difficulty. In April, 1848, she was again found in precisely the same predicament, with a fork in the œsophagus, and it was again successfully removed. In November of the same year (1848), she began to complain of excruciating pain in the right hip and thigh, which deprived her of sleep and prevented her from walking. Upon examination, no lesion could be detected to account for her suffering, and the diagnosis was therefore made of ischiatic neuralgia. All treatment proved utterly inefficient, and her condition remained unchanged till January, 1852, at which time her pain became unsupportable. She had now been confined to bed for two years, and had almost lost the use of her limbs; her pulse was scarcely perceptible, appetite disappeared, great emaciation, inability to sleep, œdematous infiltration of the lower extremities, diarrhœa and high fever towards night. There was now detected, on the upper third of the right thigh near the trochanter major, a distinct swelling, painful upon pressure, not fluctuating, not accompanied by heat or redness of the skin, but covered with large blue spots. which gave it the appearance of marble. The patient, having now a lucid interval, confessed to a third and successful attempt to swallow a fork, and expressed a belief that all medication would be unavailing till she was in some way relieved of this foreign body. Poultices were continually applied to the swelling, and, in the beginning of February, an opening was established, from which an abundant purulent secretion was discharged. Owing to the nervousness and sensibility of the patient, it was found impossible to introduce a probe into the wound, but, upon palpation, the presence of a hard, pointed substance was detected, and a few days later one tine of the fork was brought to light, and was followed by a second tine on the next day, affording sufficient proof of the correctness of her admission. It appeared from her story that this third attempt was made in April, 1818, shortly after the removal of the second fork. She suffered no decided inconvenience from its presence until it had passed from the stomach and intestine, and had worked its way into the region of the great trochanter. When three tines had become visible, she consented to submit to an operation by which this portion of the fork was removed. There remained behind, however, one tine and the entire handle, the removal of which was not attempted, owing to her great prostration. Her death ensued eight days after the operation. Permission could only be obtained for a very limited autopsy, extending to that portion of the body in the immediate vicinity of the wound. This was found to be the seat of numerous abscesses. A part of the remaining tine was discovered here, and a small fragment of the handle. It is probable that this large foreign body passed out of the pyloric orifice of the stomach, then perforating some portion of the intestine, gravitated towards the lowest part of the pelvis, till it finally found its way to the great ischiatic foramen, and thence to the deep muscles of the upper part of the thigh, causing neuralgic symptoms by pressure on the sciatic nerve.

Dr. Adelman, of Berlin, in alluding to the reports of a similar accident (in which a fork had been swallowed), remarked that there were six other cases upon record, one of which, happening in Russia, had come under his own personal observation. One of these instances had occurred in Germany, and had been made the subject of a special dissertation. The remainder had been reported either in France or in Russia. In one instance the fork passed per rectum. In another case, where a workman swallowed a four-tined fork, during an attack of delirium tremens, severe gastric symptoms were produced, with fever and adhesions between the stomach and peritoneum. An abscess was subsequently formed on the left side, in the region of the false ribs, from which the fork was finally extracted. N.

Seven Tæniæ in one Patient without Symptoms.—The case is reported in the *Journal de Médicine et de Chirurgerie Pratiques*, July, 1872.

The patient, a hospital nurse at Lariboisière, aged 25 years, had been ill for a few days with general lassitude, with pains in the epigastrium and left chest. There was no morbid manifestation to draw attention to the alimentary canal; and none of his antecedents led to the suspicion that he was infested with intestinal worms. One morning he noticed in his dejections, flat, ribboned and white masses, which proved, on examination, to be fragments of a tænia. He was ordered twenty grammes (about five drachms) of kousso, very finely powdered, infused in about eight ounces of boiling water and allowed to stand over night. He took the whole, powder and all, warmed up and well mixed. In an hour and a half, he experienced a little intestinal commotion, and some colic pains. A dejection soon followed, with considerable masses of interlaced tæniæ. A second dejection, half an hour afterwards, brought away still more. A dose of castor-oil, now given, produced liquid evacuations without further fragments of worms.

On examination of the vermicular mass under water, seven heads of tæniæ were detected, which were also verified by the microscope. The tæniæ, unrolled, measured from one and a half to nine yards in length; or a total, with the other fragments, of about twenty-two yards.

The next day, the patient returned to his occupation. On further inquiry no indications could be discovered, which, if previously known, would have led to a diagnosis. He had never partaken of raw meat, nor often eaten sausages.

The case is remarkable for the number of entozoa, and for the readiness with which they were dislodged. The latter may be due to finenessof the the powdered drug and the long time allowed for its infusion. C.

Influence of Violet Light upon the Development of Plants and Animals.—The influence of different shades of light upon the growth of flowers has been made the subject of experimental investigation by both Hunt and Pocy, while gardeners have learned, upon trial, that certain plants flourish more vigorously when exposed to a light which has passed through violet-colored panes of glass. This principle has now been extended by Gen. Pleacanton to animals. (*Gazz. Med. Ital.-L'Ippocratico*, vol. xxxv., No. 3, *Allg. Med. Cent. Zeitung*, April 24, 1872.) The experiment was tried of exposing a certain number of animals to violet rays of light, and others to ordinary sunlight, all being alike under cover. At the end of four months, it was found that the average increase of weight of the former animals over the latter amounted to thirty-four pounds. It is therefore proposed to place blue or violet panes of glass in the windows of some of the hospitals for children, with the idea of ascertaining whether a similar beneficial effect may not be produced on the human system by colored light. N.

Medical Miscellany.

A Lucrative Practice.—It is stated on good authority that Sir William Gull, of Guy's Hospital, London, has the most lucrative practice of any living physician, it being asserted that his professional income last year was £25,000.

The Medical Profession in Germany.—A private letter from Southern Germany, alluding to the abject condition of the profession there, adds:—"It makes one's feelings revolt to see how people cringe here; a great many medical men allow themselves to be treated not any better than lackeys." This is from a competent judge, and presents a different picture from that usually imagined of the profession "protected by law."

Death from Overwork.—The *New York Tribune* thinks much of the great mortality from sunstroke can be traced to culpable carelessness. Thus:—

It is not the lazy or rank-blooded man who is so often struck down, as the workingman, ignorant of ordinary precautions, or the student or excited business man, whose brain is already on fire and whose nervous system is prostrated by overwork. Our ordinary murderous high-pressure system shows its nature nowhere as in the recent records of mortality. Directions for care in exposure, dress and diet, are well enough in their place; but why should we invite death at every moment of our adult lives to give him this cold shoulder at the last? The proportion of children among those stricken down by the recent heat was appalling. Yet the heat was not worse than our forefathers bore and lived to tell us of; and it is quite true that the children carried about with them neither exhausting cares in mind nor too hardly worked bodies; but they had nothing to oppose to the fiery test but the flaccid limbs and rasped nerves bequeathed to them by either liquor-drinking ancestors or those who make the stimulant of energy and overwork take the place of liquor.

Canada Medical and Surgical Journal.—We have received the initial number of this new medical periodical. It is edited by the late senior Editor of the *Canada Medical Journal*. The reasons for a division in the editorial camp are stated to be of a personal nature. We doubt not that the Dominion can furnish medical and scientific literature enough to support not only the new *Journal*, but others not yet in the field. The close resemblance of the new monthly to its prototype is a noteworthy feature of the enterprise.

Dentistry Extraordinary.—The following case is reported in the *Medical Times and Gazette* for May 4:—A surgeon was charged with having pulled out a boy's tooth against his will. He pleaded guilty. It was explained that a number of boys had annoyed the doctor, and that he seized one of them, took him into his house, and extracted one of his front teeth against his will. The sheriff fined the accused one pound or seven days. The fine was paid.

Unguentum Sympatheticum, or Sympathetic Oyntment.—℞. Boar's-grease, brains of a boar, powder of washed earthworms, red sanders, mummy, blood-stone a. ℥j., moss of a dead man's skul not buried ʒj., make an oyntment, s.a. All wounds are cured by this oyntment (provided the nerves and arteries be not hurt) thus: Anoint the weapon that made the wound daily once, if there be need, and the wound be great; otherwise, it will be sufficient to anoint it every other day. Where note, 1, that the weapon be kept in clean linen, and in a temperate heat, lest the patient be hurt; for if the dust fall, or wind blow upon it, or it be cold, the sick will be much tormented; 2. That if it be a stab, the weapon to be anointed towards the point descending; 3. If you want the weapon, take blood from the wound upon a stick, and use as if it were the weapon. Thus the toothache is cured by pricking the gums and anointing the instrument. It is to be noted that the chrystals of vitriol converted into a white powder by a gentle heat is that which is called the sympathetical powder, which cureth wounds by washing a bloody cloth in the water in which it is dissolved.—(*Synopsis Medicinæ*, by William Salmon, London, 1671.)

Skin-grafts.—M. Ollier, of Lyons, considers that the connective tissue and not the epidermis is the active agent in the graft, and objects to sowing a number of small epidermic grafts He cuts them from six to eight *centimetres* in length, and they succeed very well; but it is inconvenient to procure such large grafts. He freezes the skin before cutting it away, and finds that it still answers well, notwithstanding this assault upon its vitality. This is a veritable autoplasty, and the healed surface has a more persistent vitality than ordinary cicatrices.—*British Medical Journal.*

Pamphlets Received.—Professional Ethics. The Annual Address before the Minnesota State Medical Society, by Franklin Staples, M.D., President of the Society. Pp. 15.—Report on Practical Medicine, made to the Illinois State Medical Society, at the Annual Meeting, held at Rock Island, May 21st and 22d, 1872, by T. D. Washburn, M.D., Hillsboro', Ill.

Deaths in Boston for the week ending Saturday, July 27th, 220. Males, 119; females, 101. Accident, 3—inflammation of the bowels, 1—bronchitis, 2—inflammation of the brain, 3—congestion of the brain, 2—disease of the brain, 5—burned, 1—cerebro-spinal meningitis, 3—cancer, 1—cholera infantum, 95—cholera morbus, 4—consumption, 20—convulsions, 2—cyanosis, 1—debility, 3—diarrhœa, 12—dropsy of the brain, 2—drowned, 2—dysentery, 2—scarlet fever, 2—typhoid fever, 4—disease of the heart, 2—intemperance, 1—disease of the kidneys, 2—disease of the liver, 1—inflammation of the lungs, 3—marasmus, 16—measles, 1—old age, 3—premature birth, 1—puerperal disease, 1—suicide, 2—scrofula, 1—smallpox, 5—disease of the spine, 1—syphilis, 2—teething, 2—tumor, 1—whooping cough, 3—unknown, 4.

Under 5 years of age, 153—between 5 and 20 years, 20—between 20 and 40 years, 24—between 40 and 60 years, 10—above 60 years, 13. Born in the United States, 188—Ireland, 24—other places, 8.

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Original Communications.

TYPHOID FEVER.

By J. B. S. Jackson, M.D.

The following communication was made, from memoranda, to the Boston Society for Medical Improvement at their last meeting, July 22d, 1872.

Several weeks ago, I had occasion to examine the cases, with dissections, of typhoid fever of which I have records, and I have thought that the results might be interesting to the Society. A few of these records were short, but generally they were much detailed, and they were taken without reference to any use that might be made of them at a future time. A very few were records of specimens only. Some other points in regard to the history of the disease will be referred to, but the anatomical appearances will be principally considered.

The whole number of cases that I have recorded is 43; and, if all the specimens that I have examined were included, the number would be much increased. These cases have been partially analyzed, and the results compared with the observations of some of the well-known authors.

Typhoid fever is sometimes seen here in young children, but I should think it very much more rare than in some parts of Europe. My dissections have been made not merely at the Massachusetts General Hospital, where very few children are received, but in the city at large and neighboring towns. From 10–19 years of age there were eight; 20–28, twenty-three; 31–37, nine; 47, one; 66, one; and of one no record. As elsewhere, by far the largest number was between 20 and 30, and very often, I should say, about 22–3 years of age. I have never seen nor heard it remarked here that males were more subject to the disease than females, except in Dr. Jackson's Report on Fever as observed at the Hospital. I do not understand why it should be so, but the fact has been stated by foreign writers, and my own cases strongly confirm their statements—there being 30 males and only 13 females. Every one knows the impossibility of dating the access of the disease in many cases, but the duration was as follows, so far as could be ascertained. From 7–9 days, five cases; 10–19, seventeen; 20–28, ten; 30–35, three; 40–42, two; 56, one; 60, one; 4 months, one; not recorded, three. The case that is said to have continued for four months occurred in the practice of Dr. Strong, a member of the Society, and well acquainted with the disease. There was no evidence of any other disease during life nor on dissection, and the disease in some parts of the intestine was still somewhat active.

Louis found Peyer's patches inflamed in all of his cases in the last 2–8 feet of the ileum, though in one the disease seemed to have been extended into the upper part of the intestine, and his observations would be generally confirmed. In my own cases about 3 feet was the extent, by measurement in 14 cases, and in one by estimate. In some of the other cases the following records were made:—lower half of small intestine affected; lower two-thirds; by measurement, to within 6 feet of duodenum, and in another to within 4½ feet from the pylorus; into the jejunum, and in another high into the jejunum. The increase of the disease from below upwards is often said to be progressive, but I have seen many exceptions.

Aitken and Reynolds describe the patches as from three to four lines in thickness; but, supposing that this includes the whole thickness down to the muscular coat, it is very far beyond anything that I have ever seen. In some cases I should say that the patches were raised a line above the surrounding surface, but generally very much less. Louis, also, in the "hard patches," as he calls them, found the cellular tissue beneath the patch from four to seven millimetres in thickness, or two to three lines, as translated by Dr. Bowditch. Much has been said of a peculiar "typhous deposit" in this submucous cellular tissue, and of its being found, also, in other organs besides the intestines, but I could never believe it. As the disease advances, we have generally supposed that the patch was destroyed by ulceration, but it seems to be regarded by many of the best modern pathologists as a process of sloughing. This may be, if ulceration is nothing more than a death and casting off of the molecules of the inflamed tissue; but though "sloughs" were occasionally seen upon the ulcers in the cases here referred to, there was generally nothing of the kind. Ulceration usually begins much earlier, but in one case it had not commenced on the seventeenth day. Generally the whole patch is inflamed, and, if ulcerated, the whole is ulcerated. Not unfrequently, however, the inflammation is confined definitely to one or two portions of the patch, when the surface is otherwise nearly or quite normal. And, the whole patch being inflamed, the ulceration may be as definitely confined to one or two portions of it, or even more. This is well shown by Cruveilhier.

Rokitansky and the best modern pathologists generally say that the ulcers are elliptical in form, and situated opposite to the mesentery; and, when in the solitary glands, they are circular. I have very generally found them of a rounded form, when in the elliptical patches, and from their size they must have encroached very much upon the mucous membrane. Dr. Bright figures the ulcers precisely as they have been seen here, and repeatedly; and it is very remarkable that his description and delineation of the disease, which was published in 1827, two years before the appearance of Louis's work, should be so seldom referred to. Even his own countryman, Aitken, does not find room in his ponderous work to notice him; and the only explanation that I can think of for this neglect of Dr. B. by modern pathologists, is that the volume in which he recorded his observations on fever, announced his discovery of a disease which has made his name so famous—if it can be called a discovery, when he was so nearly anticipated by Dr. Blackall, and to whom he scarcely refers in his work. The ulcers in typhoid fever are not unfrequently elliptical in form, but, when I have found them so, they have been very generally, if not always, transverse to the length of the intestine—being distinctly so recorded in seven cases. The same tendency to elliptical ulceration, transversely to the intestine, is often seen in cases of dysentery, and I have never heard of any good explanation of the fact. Peyer's patches are often described as "elliptical," and opposite to the mesentery, and so they generally are; but small patches, consisting of only a few follicles, are not unfrequently found, of a circular form, and anywhere but opposite to the mesentery. I have never seen them, except in the last few inches of the ileum; and, though Louis speaks of them, I do not think that they have been sufficiently noticed. I doubt very much if they always exist, but, when they do, they must be liable, with the other patches, to inflammation; and, from a want of knowledge of this fact, one might suppose that the small, circular ulcers, near the valve and near the insertion of the mesentery, were in the mucous membrane and not in Peyer's patches.

In regard to perforation of the ulcers into the peritoneal cavity, Aitken quotes Louis as having met with it eight times in 55 fatal cases; Murchison, three times in 15 cases; Bristowe, fifteen times in 52 cases; and at the London Fever Hospital it occurred twelve times in 53 cases. In my own 43 cases there was perforation six times. Perforation, then, occurred forty-four times in 228 cases, or in nearly one-fifth of the whole number. The frequency of its occurrence in Dr. Bristowe's cases deserves especial notice. Where the disease is most advanced there we should expect to find the perforation; and, accordingly, it is said to be most frequent in the lower part of the ileum. In my own six cases the distance from the valve was, respectively, 12 inches, 19 inches, 21 inches, 25 inches, 44 inches, and 7½ feet. On the other hand, in two specimens in the Med. College Museum, and which were from patients who died in this city, the distances were 2 inches from the valve in one, and 3 inches in the other. The case in which the perforation was 7½ feet from the cæcum may be found in Dr. Jackson's report above referred to; and I would say that 7½ feet and 44 inches is far beyond anything that I have seen recorded. I do not, however, attach so much importance to this point as some do, as I do not believe, as I have already said, in a regularly progressive increase of the disease from below upwards. Reynolds found perforation once in the cæcum; and, in Dr. Jackson's memoir of his son he quotes a case in which Dr. J. Jr. met with it in the appendix cæci. Ulceration not unfrequently extends to the peritoneal coat, so that perforation might have occurred at any time; and it would be interesting to tabulate these cases as well as those of complete perforation. It has often been observed here as well as in Europe that perforation is very apt to occur in mild cases; and Niemeyer says that one may even be about his business at the time of the accident—a form of the disease to which he gives the name of *typhus ambulatorius*. In one very mild case that I examined it occurred on the thirteenth day, the patient being dressed, and having had an appetite for two days. In another, also very mild, it occurred on the fourteenth day, and the patient had shaved himself only two or three hours before the fatal attack. In a third, the disease was not recognized, and the patient was thought to be only suffering from a "cold." This last was complicated with hæmorrhage into the peritoneal cavity—an unique case so far as I am aware. Rokitansky attributes the perforation to the process of sloughing. In four of my cases, however, no allusion is made to this process; and in the two others, though there was some sloughing of the ulcers, there was none at the seat of perforation. I would refer once more to the two specimens in the College Museum, in one of which the whole base of the ulcer seemed to slough out, whilst in the other there was a mere pin-hole. The system seems to take alarm at the accident, and pain, with symptoms of collapse, very generally ensues, and as the result of a small as of a large perforation, so far as I have seen. In regard to the cause of the peritonitis, I do not remember ever to have seen fæcal matter in the cavity, and three times, at least, I have reported it as not being found. Niemeyer says that the air that is discharged from the intestine into the peritoneal cavity forces the liver away from the abdominal parietes and produces a resonance or percussion where there is usually dulness; and this he considers one of the most certain signs of perforation. I should not think that air enough could escape to produce such an effect—the case being so different from one of pneumo-thorax; and in three of my own cases it is distinctly stated that no air perceptibly escaped when the peritoneal cavity was opened. The same author makes the very important statement that peritoneal adhesions occasionally form between an ulcerated portion of intestine and some other fold, and thus perforation into the peritoneal cavity may be prevented, as in the case of adhesions about a chronic ulcer of the stomach. I have never seen anything of the kind, but in the course of the remarks that followed this communication, Dr. Cotting reported a case that was directly in point. In a well-marked case of typhoid fever he found two folds of intestine agglutinated by recent adhesions, and an ulcer had penetrated quite through the parietes of one fold, though not into the other and not into the peritoneal cavity.

Hæmorrhage, as well as perforation, seems as apt to occur in mild as in severe cases, so far as I have seen, and as has been, I believe, generally remarked. In five of my cases it was the cause of death. We naturally regard the ulcers as the source of the hæmorrhage, but we shall rarely, I believe, find any appearances to show that such was the case. In two of my cases only, was anything seen. In one, a recent clot hung off from an ulcer in the cæcum, and the large intestine contained a considerable quantity of blood. The patient was a little girl, and the case was so mild that she had been dressed every day, and had her playthings about her when the hæmorrhage came on and proved fatal in a few hours. In the case of perforation that was complicated with hæmorrhage into the peritoneal cavity there was found a little projecting point from the margin of the perforation, and that looked very much as if it might be a bloodvessel, though nothing was proved. A vessel in the base of an ulcer might very well give way, and cause fatal hæmorrhage, and, the blood being all expelled from it, no trace of its source would be seen. The sloughing condition in which the ulcers are sometimes found would undoubtedly help towards the hæmorrhage; and yet, though they may generally be the source, I have often thought the blood might proceed from the mucous membrane, as it does undoubtedly from that of the nostrils. Grave as the accident generally is, it seems sometimes to be remarkably well borne, and I think that I have seen cases in which the patient sometimes even seemed better after the hæmorrhage, as Dr. Jackson used to remark might be the case.

In three or four weeks it is said that the active processes are over and cicatrization begins; but the period varies so far as I have seen; and in the case that I have reported as having continued for four months there was open ulceration—though it may be said that these open ulcers were of only recent formation. The changes that take place in the base and edges of a cicatrizing ulcer are well known, and have often been observed here; but, though the base becomes covered over with a smooth, cicatricial tissue, I have never seen any appearance of villosities, as described by some of the modern pathologists. The villi, it is said, may be re-formed, but not the follicles, and I can very well conceive that, in time, this may be the case. It would be well, however, if the intestines of persons who may be known, or even from their age may be supposed to have had typhoid fever, should be examined with reference to these anatomical questions, and also to the often asserted fact of a second attack of fever. Rokitansky says that the intestine never contracts after the cicatrization of typhoid ulcers, and I suppose that all would agree with him in the main, though I do not remember ever to have seen it remarked, and I certainly have never seen any approach to it on dissection. I have seen, however, a well executed photograph of a case of typhoid fever that occurred in the West, and in which there was a very marked constriction just above the valve. The same absence of contraction is, so far as I have seen, always found during the cicatrization of dysenteric ulcers; and I do not think that we can explain the fact, when the loss of substance is often so great, except by supposing that nature is too wise to allow contraction to take place when the consequences would be so serious. The mucous membrane is said to be reddened in typhoid fever, and I have seen it so not unfrequently, but I have sometimes remarked the contrary; and often thought, when it did exist, that it was a mere passive congestion and of very little pathological importance.

Boston, July 27, 1872.

[To be continued.]

A CASE OF CEREBRO-SPINAL MENINGITIS.

By S. G. Webber, M.D.

The patient was a girl, 11 years old, a daughter of very intemperate parents. She had received much cruel treatment in her early years, but from the age of 5 had been kindly provided for. Four years ago, she had the whooping-cough; since then she had been well.

During her last sickness, she was under the care of Dr. J. E. Walker, at whose request I have drawn up the account of her case from his notes and my own observations, adding the account of the autopsy.

On the evening of May 9th ult., when retiring, she told her sister that she felt sick. It was thought she slept well; on the next morning, however, while attempting to dress, she vomited; she vomited again after going down stairs and complained of severe headache, and went to bed. She lay quiet, with her eyes closed, as if asleep, till 1, P.M., when she walked to the water-closet. A little girl noticed that she then looked "cross and ugly at her." At about 2., P.M., she is said to have trembled, and her head was observed drawn backwards. Dr. Walker was immediately summoned, and saw her first at 4, P.M. Then her head ached, she protruded her tongue which was covered with a light brown coat, was red and dry in the middle. The eyes were red and watery, and the face and hands had a dark, bluish color. Petechiæ were scattered over the surface of the body and limbs. Pulse 140. At this stage of the examination, all intelligent answers ceased, the patient began to chatter and moan, then vomited and had a convulsion. The convulsion was attended with opisthotonos, with the head drawn to the right shoulder. She was placed in a warm mustard bath and ordered to take ten grains of chloral every two hours if very restless.

There were no more convulsions, but much restlessness, moaning, throwing the arms above her head, moving her legs and turning from side to side. On May 11th, the pupils were slightly dilated; she was unconscious; pulse 140; head still drawn to the right; there was considerable rigidity of the muscles of the back, and of those of the jaws, retaining the mouth shut and allowing the jaws to be only slightly opened.

When I saw the patient, May 12th, she was in very nearly the condition last described. I asked her in a loud voice to put out her tongue, but she made no motion. She, however, twice voluntarily guided her hand directly to mine, without groping. Pulse 144; teeth covered with sordes; she swallowed what liquid was put into her mouth; the eruption was not very dark, and was chiefly confined to the arms and body, only a few spots being on the face and legs. A part of the time she was quiet and during the rest of the time restless. The chloral was continued in ten grain doses every three hours.

In the evening of the 13th, the right eye was closed, the left eye partially open; the right arm and leg were continually in motion, the left arm and leg were only occasionally moved; deglutition was not possible. The pulse was 150–160, rather fuller than I expected to find it. There was no response to any question, and only a low moan when the head was turned; there was almost complete coma. On the 14th, at 2 o'clock, P.M., she died, and the autopsy was made the same afternoon about 4½ o'clock, P.M.

The rigor mortis was very slight if there was any. The body was still somewhat warm. The viscera were healthy in appearance, except the liver and the intestines. The former had a peculiar irregular appearance, due to an abnormal development of the fibrous trabeculæ, by which the glandular structure was divided into small lobules. Peyer's patches were slightly more prominent than usual; the solitary glands were enlarged; in the large intestines the solitary glands were prominent, but less so than in the small.

The dura mater seemed normal. Under the arachnoid, covering the right hemisphere, there was a moderate amount of pus following the course of the vessels; over the left vertex the arachnoid was perhaps rather opaque; there was no pus and but a slight amount of serum. At the base there was a thick deposit of pus or lymph covering the optic chiasma, pons, medulla and central part of the under surface of the cerebellum, and, to a less degree, the crura cerebri, a little also in the fissure of Sylvius. The cord was also thickly lined with the same deposit, especially posteriorly, throughout its entire length. The cauda-equina was not examined, but the deposit seemed to extend in the vertebral canal below the point to which it was opened.

The substance of the brain was rather pinkish and the puncta vasculosa were rather numerous. The ventricles contained a small amount of purulent serum.

Under the microscope, the minute vessels, not capillaries, of the dorsal region of the cord showed extensive fatty degeneration of the nuclei; those of the brain showed the same, but to a much less degree.

503 *Shawmut Avenue.*

Syphilis in the Ape.—Dr. Schmidt reports that an ape had his penis almost entirely destroyed by ulceration, that the hair fell out in places and that the frontal bone as well as some of the long bones were perfectly carious. In the zoölogical garden at Manchester, where the animal died, it was ascertained from the keeper who had had charge of the apes that these animals had been previously subjects of a disease which was characterized by ulceration of the external organs of generation, and which was extended by sexual intercourse. In the same collection of animals there was a female ape diseased in like manner; the vulva was surrounded by condylomatous formations of considerable size, and there was an abundant sero-purulent vaginal discharge. —*Schmidt's Jahrb.*

Reports of Medical Societies.

SUFFOLK DISTRICT MEDICAL SOCIETY. REPORTED FOR THE JOURNAL.

The Society met May 25th, Dr. G. H. Lyman, the President, in the chair.

Removal of an Ovarian Cyst.—Dr. Bixby exhibited a large ovarian cyst that he had removed from a patient three days previously. After the woman had been placed under the influence of chloroform, the cyst was exposed by the usual incision, but as it was being emptied, collapse came on and the operation was suspended for a short time, until the patient rallied. There were no adhesions to the abdominal parietes, but a second cyst was found deep in the pelvis, after the first had been emptied. The pedicle of the cyst was secured by the clamp, the mass was removed and the wound closed. Since the operation, the patient had been very comfortable. Pulse 80. The diet had consisted of gruel. Neither stimulants nor narcotics had been given.

Dr. Wheeler remarked that, frequently, it was the case that collapse or vomiting came on when the intestines were being handled. It was important to avoid vomiting, either at this stage or later in the operation, and he had seen much less since chloroform had been used.

Removal of Fibrous Tumor of the Uterus.—Dr. Chase exhibited the specimen and gave the history of the case. The patient was 45 years of age. She menstruated when she was 14 years old and married when she was 20. Five years ago, she suffered from a miscarriage, and since that time has complained more or less of leucorrhœa. During the past two years, coitus has been painful and has been followed by some bleeding. For the last six weeks there has been constant hæmorrhage, which at times has been very profuse.

On May 25th, an examination was made, which revealed the tumor projecting from the os uteri and attached to the anterior wall by a short pedicle. With ecraseur, the tumor, which was 1½ inches in diameter, was removed.

Bones of a Fœtus Discharged by the Rectum.—Dr. Jackson showed some of the bones of a fœtus discharged by the rectum. The case was published in this Journal for April 4th ult.

Dr. Bowditch spoke of a case in which there had been a discharge for some time through an opening in the rectum. The case was diagnosticated as a pelvic abscess, but lately, some hard masses had come away, and a microscopist, who had examined them, considered them to be portions of a fibrous tumor of the uterus.

Dr. Jackson said that he saw no reason why such a tumor might not be discharged in this way by a process of adhesive inflammation and subsequent ulceration. He also referred to a case in which a similar tumor was found in a cavity in the substance of the walls of the uterus.

Dr. Fitz exhibited the *Tongue of a Child very much Enlarged* from the development of spongy tissue and of cysts filled with blood.

Addison's Disease.—Dr. Sinclair reported the case. The patient, a man 28 years of age, had been in good health until three years ago, when he had an attack of pleuritis, which confined him to his bed two or three weeks; from this attack, however, he completely recovered. About the middle of February last, he commenced to have vague pains in the extremities, and complained of a feeling of weakness, which necessitated his giving up work.

On the 14th of March, when he came under the care of Dr. S., he still complained of weakness; there was loss of appetite, some nausea and occasional vomiting, and slight pain in the epigastric region. The urine, which was pale and of a specific gravity of 1012, contained a trace of albumen, a few fatty and granular casts, and some uric acid crystals. About the middle of April, the face assumed a slightly bronzed appearance. On the 8th of May, while the man was going up stairs, he suddenly had an attack of dyspnœa, and was unable to walk to his room without assistance. The discoloration of the face had much increased, and the hands had a similar appearance at this time. The conjunctivæ were pearly; the base of the nails were white, but the nails themselves were of a tawny hue. The trunk and lower extremities were not discolored. There was complete anorexia, pain in the epigastric region, constant nausea and frequent vomiting. Pulse 96, and weak. The patient gradually failed, and died on the 21st of May.

Dr. Fitz exhibited the *Supra-renal Capsules* and gave an account of the autopsy. The supra-renal capsules were filled with a degenerated cheesy mass. There was some fatty degeneration of the kidneys. The left pleural cavity was obliterated by old adhesions. The brain and cord appeared healthy. The spleen was enlarged and darker than normal, from the deposit of granular pigment.

Dr. Webber read a paper on a case of *Cerebro-spinal Meningitis*, which appears on a previous page of the present number of the Journal.

In remarking upon this paper, Dr. Williams suggested that the ophthalmoscope might assist in the diagnosis of obscure diseases. Inflammation in the interior of the eye sometimes occurred in cerebro-spinal meningitis, and we might find injection of the vessels of the retina, as in other forms of meningitis.

Dr. Bixby alluded to a case of *Absence of the Uterus* that had lately come under his observation. The patient had consulted him in regard to treatment for imperforate hymen. There had never been any catamenial discharge, although there had been a periodic disturbance of health. The external sexual organs were well developed, but the vagina was only a short *cul de sac.* There was an irregular, elastic, pulsating tumor, about two inches and a half in diameter, in the left hypochondrium.

Adjourned.

AMERICAN OTOLOGICAL SOCIETY. J. ORNE GREEN, M.D., SECRETARY.

The Fifth Annual meeting of the Society was held at the Ocean House, Newport, R. I., on Wednesday, July 17th, at 11¼ o'clock. Eight members were present. In the absence of the President, Dr. Morland, of Boston, was chosen Chairman.

Drs. J. Solis Cohen, Charles H. Burnett and George Strawbridge, of Philadelphia, were elected as members.

The Executive Committee reported the following communications, which were read in order and referred to the Publishing Committee:—

1. Report on the Progress of Otology. Dr. C. J. Blake, of Boston.
2. Accidental Evulsion of the Membrana Tympani and Ossicles of Hearing. Dr. C. H. Burnett, of Philadelphia.
3. Clinical Contributions—Otitis Media Hæmorrhagica. Dr. D. B. St.J. Roosa, of New York.
4. Peculiar Case of Impacted Cerumen. Dr. Roosa, of New York.
5. The Examination of 100 cases of Impacted Cerumen, with a view of determining its Pathological Indication. Dr. O. D. Pomeroy, of New York.
6. A Case presenting a Mastoid Sequestrum. Dr. O. D. Pomeroy, of New York.

7. A Faucial Eustachian Catheter. Dr. O. D. Pomeroy, of New York.

8. Perception of High Musical Notes. Dr. C. J. Blake, of Boston.

9. A Case of Caries of the Meatus. Dr. C. J. Blake, of Boston.

10. A Middle-Ear Mirror. Dr. C. J. Blake, of Boston.

Verbal communications were made by Dr. Morland, of Boston, on a late publication in which corpulence is considered a cause of deafness; and by various members, who reported cases of injury to the ear from external violence from explosions, from blows, and from attempted removal of foreign bodies.

The following officers were elected for the ensuing year:—

President, H. D. Noyes, M.D.

Vice President, E. L. Holmes, M.D.

Sec'y and Treasurer, J. Orne Green, M.D.

Publishing Committee, Chas. E. Hackley, R. F. Weir, M.D.

Committee on Progress of Otology, C. H. Burnett, M D.

The same rules in regard to assessments, the revision of proofs and adjournment were adopted as last year.

The minutes of the session were read and approved, and the Society adjourned at 6¼, P.M.

AN HEROIC DRUGGIST.—The Paris correspondent of the *Lancet* relates the following incident: The anniversary of the entry of the Versailles troops into Paris painfully reminded me of the dreadful scenes I had witnessed and the unheard-of atrocities committed during the furious struggle between the insurgents and the regular army. Among the melancholy events that then took place, I may mention that related of a *pharmacien* by the name of Koch, who was brutally murdered by the Communist soldiers simply because he refused to help them in raising a barricade in his neighborhood. Not only did he refuse his aid, but he attempted to lecture them on their conduct, whereupon two of the men attacked him in his own shop. The pharmacien, however, kept them at bay with a bottle of sulphuric acid in his hand, which he threatened to bespatter them with if they dared to touch him. The men, finding a dangerous weapon before them, beat their retreat, but soon returned with a reënforcement. The poor pharmacien was carried out of his shop, and, after a sham "drum-head" court-martial, was ruthlessly shot in the presence of his wife and children.

Medical and Surgical Journal.

BOSTON: THURSDAY, AUGUST 8, 1872.

PUBLIC HEALTH.

Now is the time for our medical brethren to make their influence felt as the guardians of the health of the people. It is the annual revival period for the sanitarian. He preaches to unwilling ears at other seasons—the text has no immediate and perceptible application; but now that all decaying stuff under the summer's sun is made evident to the senses, when the general mortality is doubled, when wholesome fears of cholera are ready to aid us, the work of reform can be undertaken with such certainty of engaging the interest of all reasonable people that it will not fail. Boston cries out for an efficient Board of Health to clean its streets and back alleys, to purge its foul tenement houses, to remove its festering nuisances on new land and old, to devise such a *system* of public hygiene as will show that a great city with such natural advantages as Boston possesses may become as distinguished for its healthfulness as for anything else—that it may even rival the open country in its low rate of mortality.

Our professional brethren do not know how much influence belongs to them by general concession. Let the physicians of Boston at once demand in the interests of the people that a competent Board, not too large for efficient action, and not too large to be paid for their services, should supplant the present Board of Aldermen as a Board of Health, and the people will insist upon the change at the next City election, if, indeed, the reform be not consummated sooner.

A similar work may be done in every city and town in New England. In what way, we would ask, can a young physician more reasonably engage the good will of his townsmen than by activity and zeal in such labors?

If his knowledge be accurate and capable of demonstration, if his enthusiasm be directed with good nature and tact, and not take the form of scolding and vituperation, he will soon draw to his aid the thoughtful people, the directors of public opinion, those who guide the community, whether their towns-people know it or not, and with this support his eventual success, not only as a sanitarian but as a practitioner, is assured.

There are towns in Massachusetts which prove the truth of these remarks, and to which we could point if needful.

THE CITY SMALLPOX HOSPITAL.

The daily press of Boston has exhibited such commendable zeal in showing forth the worst features of an institution which, at the best, has, in any community, a bad name, that we can hardly expect that any word from us will carry much weight. There is no doubt that the evidence is conclusive enough to make a case against the city government or against somebody for palpable negligence in providing suitable accommodations for the care of cases of smallpox. When the complaints were first published, we took occasion to inquire into the accuracy of the charges; and we do not care to conceal the opinion that, while the reports which were circulated were exaggerated and sensational, and were well calculated to mislead public sentiment while they excited public alarm, they were, nevertheless, truly founded on a condition of affairs at the pest-house which have for a long time needed radical remedy, and concerning which we are glad now to record such prompt action on the part of a committee of the Board of Aldermen. The buildings and their appointments—the lack of anything like proper provision for heating, for water service or for culinary necessities—these, together with the need of a high fence to completely surround the grounds for the sake of complete isolation and quarantine, are unquestionably matters for immediate attention.

We hope, however, that the obvious needs for a decided change as regards the hospital-accommodations will not serve to prejudice the judgment of those having the matter in hand concerning a change of location of the pest-house. We are not convinced that the present place is not, all things considered, the best. It is accessible and at the geographical centre of the city. It is at a sufficient distance from dwelling-houses, there being no residences within an eighth of a mile in either direction; and, what is of obvious consequence, its immediate surroundings—the City Hospital, the city stables, a channel of water, and an extensive lumber-yard, are probably as permanent in their character as any that could be found. We do not believe that the inhabitants of the adjacent territory need feel any unusual alarm, or that, even with things as at present, we shall hereafter hear of any greater spread of infection in that neighborhood than during the last six months, when public excitement on the subject was not yet developed. If smallpox-patients are to be removed at all from their homes to the pest house, a measure of sanitary prudence which we commend, they must be transported through the streets, and one part of the city is as good as another so far as that exposure is concerned.

The alleged cases of infection, occurring in the vicinity, would appear to have a bad look in the present instance; but it should not be forgotten that at a time when the smallpox is prevalent to an uncommon extent in this city and in other cities the opportunities for infection are not confined to one locality. We must mention, also, the fact that no cases of variola have occurred among the patients of the City Hospital, one ward of which is directly across the street from the pest-house and more exposed than any other building in the vicinity. We allude to these topics not to disprove any statements which have been made, but to aid in allaying any tendency to undue alarm which those statements may have awakened.

The accusations concerning the maltreatment of patients and the other abuses connected with the smallpox hospital we believe to be chimerical, growing out of the popular appetite for sensationalism. The public had heard nothing of this abuse until some one wanted the hospital removed, and we presume it was not difficult to find the chronic grumbler whose story of his imaginary wrongs while a patient would be a seasonable theme for journalistic enterprise to work up. We are glad the matter is being investigated, if for no other reason, because we believe such an investigation will neutralize aspersions upon the fidelity of careful attendants and of a devoted and skilful physician, who can lay claim to no small degree of credit that, with such scanty resources at his command in the way of hospital appointments, he has been able to report such very favorable results of treatment and so small a mortality-rate.

We think one may plainly see in all this exposure of the smallpox department of the City Hospital emphatic confirmation of the reiterated need of Boston for an independent, efficient Board of Health, endowed with the power, in common with its other duties, to promptly deal with an epidemic of smallpox without the vexatious delays and the perilous obstacles inevitable with the present inadequate system. With such a Board, acting in harmony with a city physician as efficient as the present, an epidemic would have the least chance to extend. We trust, therefore, that the agitation of the subject will eventuate not only in the erection of suitable and suitably-appointed buildings for the care of cases of smallpox at seasons when their removal to the Island hospitals would be impracticable, but, indirectly, in the establishment of a much needed City Health Board.

ABORTIFACIENTS—WHAT ARE THEY?—According to the newspapers, a law has recently been passed by the Legislature of Illinois to prohibit the sale of "abortifacient drugs," except on the prescriptions of well-known practising physicians. Medicines intended for females, with the formulas, must be submitted under oath to five physicians of the county where it is proposed to sell such medicines; and these physicians must certify, under oath, that the said medicines are not "abortifacient," before sales can be made. This is all very well; and will keep out of open market a number of dangerous articles and vile preparations now sold with "criminal intent." Curiosity, however, is excited to learn what drugs, or preparations, the "five doctors" will, under oath, declare unfit to be sold because they are "abortifacients."

From British Journals.

CEREBRAL HÆMORRHAGE.—The following abstract of a clinical lecture on a case of cerebral hæmorrhage, by C. Handfield Jones, Physician to St. Mary's Hospital (*The Medical Press and Circular*, July 10, 1872), will be found instructive.

The patient was brought to the hospital in a tolerably conscious condition, although his speech was much impaired. His eyes were strongly turned to the right, the left arm and leg were paralyzed, and his face a little drawn to the right. The next day he was insensible, breathed rather stertorously, 26 times per minute, which on the following day was increased to 50, when he died.

The autopsy revealed a flattening of the convolutions, especially on the right side, and a large cavity containing about two ounces of clot and fluid blood at the postero-lateral side of the right hemisphere. This was the principal lesion.

Dr. Jones proposes the following queries:—1st, Why is a patient in such a case as is here detailed unconscious? 2d, Why does he die? The reply usually given to these queries makes pressure the sole cause, the hemispheres being supposed to become anæmic, and so incapable of functioning because of the compression by the effused blood; and, for a similar reason, it is supposed that the medulla oblongata is unable to minister to the nerves presiding over the circulation and respiration. That this cause has some effect is not denied, but it is greatly doubted whether it is the sufficient and principal cause; for in cases of cholera, where there is excessive cerebral anæmia, and where a mere dribble of blood is found in a divided artery, the patients have full possession of their mental faculties. Sometimes, in cases of simple apoplexy, nothing can be found causing pressure, and yet the patient becomes unconscious, and dies within a few hours. There are many cases on record where large cysts or abscesses have existed for a long time within the skull and have given rise to no symptoms till near the close of life. In these instances there must have been a good deal of pressure. Such considerations lead us to assign to anæmiating pressure much less efficacy than that with which it is usually credited in the production of paralysis, coma, &c. No other cause can be assigned than *irritation*. Some may object that this term conveys no definite idea, but certain it is that the ends of the torn fibres at the edge of a hæmorrhagic cavity are in a very unnatural condition, and it cannot be considered improbable that the nerve cells, with which their other extremities are connected, should be injuriously affected thereby. Dr. Jones would define irritation as the result of a *morbid* stimulus which impairs functional energy, while *healthy* stimulation promotes it. A suddenly produced lesion operates with vastly greater severity than does one which is slowly produced. A very large abscess or cyst may cause no symptoms, but a small hæmorrhage is almost certain to produce very decided ones, the chief difference in these instances being the suddenness with which the morbid change is produced.

The answers given to the questions are: "That the paralysis of the hemispheres conditionating unconsciousness depends mainly on deranged action of the nerve cells of the convolutions, by the morbid impressions conveyed to them from the seat of lesion; so that death ensues either from similar irritation affecting the respiratory centre, and rendering it unexcitable by the '*besoin de respirer*' sensations conveyed by the vagi, or from inhibitory arrest of the action of the heart by the vagal filaments joining the cardiac ganglia."

Cerebral symptoms in cases of hæmorrhage and other kinds of lesions may be separated into two groups—*one* comprising those which depend on direct damage to the machinery; *the other* those which are generated by the irritation set up by the original lesion and conveyed by the commissural fibres to adjacent centres. The former may be called *primary* or *necessary*; the latter *secondary* and *varying*. Thus in a case of a clot in the corpus striatum, we have hemiplegia on the opposite side as the primary result, while unconsciousness, lingual and facial paralysis, disorder of the circulation and respiration may be enumerated as probable secondary results. The practical value of this distinction is that these latter not being necessary results of the actual lesion, we may hope to mitigate or remove them by treatment, but on the other hand we must be cautious not to do anything which might promote their occurrence. Irritation will, in all probability, tell more severely on an exhausted than on a stronger system, and sometimes depletion seems to have promoted the invasion of paralysis. Nothing we can do can have any speedy effect on the actual lesion; the most we can hope for is to prevent its extension and to promote cicatrization.

Dr. Jones is far from denying the important part played by pressure in many instances, especially of surgical lesion, nor does he overlook the possibility that the lesion may be multiple, or that it is a matter of indifference where the primary lesion is situated; but he asks us to consider whether, in the majority of cerebral lesions, irritation may not contribute, at least, as much as congestion and effusion, to the production of symptoms. G.

The Necessity of Re-vaccination.—Under this heading the *British Medical Journal* of June 22d, 1872, has a letter from Mr. Lattey. He states that, as many cases of smallpox occur after successful primary vaccination, which are attributed to imperfect vaccination, he thinks these cases might be ascribed more properly to the fact that smallpox itself is, to a considerable degree, apt to occur more than once in the same subject. Persons having once had smallpox, and that, too, severely, have, in his experience, been susceptible to vaccination, which, at times, ran a regular course. He also found that persons whose primary cicatrices were large and perfect would have characteristic vesicles when re-vaccinated, while those whose arms did not take well the first time, did not take well from the second operation. Hence, he concluded that it was the amount of susceptibility to smallpox that decided the results, and not the operation. Although the majority of these who have been vaccinated are protected from smallpox, yet the disease may occur to a considerable extent in those who have been successfully vaccinated, because it is the nature of smallpox to occur in a considerable number of persons more than once. It becomes incumbent on all to be re-vaccinated, because they are then in an analogous position to those who have had smallpox a second time.

Many of the statements made in the above letter are nearly identical with those advanced in an article on vaccination and re-vaccination published in this Journal Aug. 29th, 1867.

"Some persons," says Dr. Cotting, "have a natural exemption from smallpox. . . . . Others, again, suffer from repeated attacks, even after the first has left many and enduring evidences of its severity.

"The scar is merely an evidence of how much of the true skin is destroyed, and this destruction of the cutis is the simple result of the common suppurative process, ... and while it can in no way be a measure of the constitutional affection, or subsequent immunity, it is equally of no value as a test of perfect or imperfect vaccination.

"Protection [from smallpox] being neither the result of, nor in proportion to, the severity of the disease, and not to be measured by the number, size or peculiarity of the scars, is completely attained only when susceptibility is extinguished, be it after a single or a repeated attack. . . . . Further, if an individual can receive smallpox a second time, to such a degree at least he may receive a second vaccine disease. This may happen within a few months after the first reception, as we have had repeated opportunities to witness, or even after a few days, as well as after a longer interval.

"For a large proportion, one vaccination is enough. A second, if desirable at all after having been once thoroughly done, is only to ascertain the amount of susceptibility remaining after first trial." G.

Erysipelas.—The Paris correspondent of the *Medical Times & Gazette* of July 13 ult., states that it is curious to notice the different forms of treatment employed in this disease, each being dictated by particular theories. Many practitioners, M. Maissonneuve among them, ignore the distinction of idiopathic and traumatic erysipelas. They say that the disease is always traumatic, the result of some lesion or traumatism, visible or invisible, through which the specific poison enters the blood and produces the phenomena characteristic of the disease. Maissonneuve applied a blister to the affected part with the view of eliminating the poison, and went so far as to say that by proper tests the poison would some day be detected in substance in the serum of the blister which is nothing else than the serum of the blood itself. Emetics and purgatives he gave for the same end – viz., to effect the elimination of the poison; but as the latter when in the blood is beyond the reach of these remedies, local measures are to be employed. Some Paris practitioners apply a blister around the affected part, or paint about the eruption with tincture of iodine or with nitrate of silver, with the view of checking the extension of the inflammation; others protect the part with a film of collodion. Prof. Broca, however, has been trying to limit the extension of the erysipelas by encircling it with a layer of collodion two or three inches wide, and, says the writer, with a certain amount of success.

M. Maissonneuve's treatment is, to say the least, sufficiently active. If the poison of erysipelas always enters the blood through some wound, how can emetics or purgatives *ever* "effect the elimination of the poison"? In marked contrast to M. Maissonneuve's treatment by emetics, blisters, &c., are the conclusions arrived at by one whose authority was second to that of no other French physician. We refer to Trousseau. In his clinical lectures, he asserts that in erysipelas his rule was to abstain from every kind of treatment, keeping his patients in bed, giving laxatives if needed for constipation, and giving slightly acidulated diet-drinks. "But," says he, "I give nourishment, even when there is fever—even when there is delirium. So far from prostrating the patient by withdrawing blood, by bleeding him at the arm, or leeching him behind the ears; in place of making it my rule to administer emetics, and give purgatives in repeated doses; instead of placing the patient on very low diet—I remain with folded arms spectator of a contest from which I know Nature will come forth victorious if I refrain from disturbing her operations. Of the great number of cases of erysipelas which I have attended, three only had a fatal termination; the others spontaneously recovered." G.

A Real Hæmatinic.—The Paris correspondent of the *Medical Times and Gazette* of June 22d ult., states that the Parisians are now taking bullock's blood for anæmia and in pulmonary phthisis. It is a curious sight to see patients of both sexes and of all classes and ages flocking to the slaughter-houses every morning to drink of the freshly drawn blood of the slaughtered animals. The young ladies take it readily, and many say they prefer it to cod-liver oil. The writer declines to enter into any theoretical speculations as to its *modus operandi*, but states that he knows of several cases of anæmia that have been cured, and some of pulmonary phthisis that have been much benefited by the treatment. An extract of blood has been prepared, which is administered in the form of pills, each of which, weighing three grains, is said to be equivalent to about half an ounce of blood.

The same correspondent states that M. Boussingault recently read a paper before the Academy of Sciences giving an account of his researches on the composition of the blood, and urging its employment as an article of food. It contains all the constituents of a perfect aliment. An analysis of human blood gave, in each 100 grammes, 51 milligrammes of iron; in the same quantity of that of the ox there were

55 milligrammes, and 59 in that of the pig. But it was not only in red blood that iron was found; the blood of snails contained as much iron as that of the ox; so that the experimenter concluded that the red color of the blood is not due, as is commonly supposed, to the presence of iron.

THE VACCINATION LAWS OF EUROPE.—The *Medical Times and Gazette* contains, under this heading (July 13th and 20th ult.), a comparative review of the legal measures adopted by various European governments to promote the benefits of vaccination.

The Prussian code is a mixed system of disabilities and penalties. According to this law, children are to be vaccinated in the first year. The penalty for violation is only inflicted in case that children who have not been vaccinated in their first year are attacked with smallpox.

Directors of schools, master tradesmen, manufacturers and other employers, are required to obtain proof that those who come to them for instruction or employment have been vaccinated.

"Persons who seek for their children, or for those committed to their care, admission into any public government institution or other benefice, meet with a refusal if they cannot show proof that the said young people have been vaccinated."

None but physicians and surgeons licensed as general practitioners are allowed to vaccinate. They are obliged to furnish to the police, quarterly, a list of those whom they have vaccinated in their private practice.

A public general vaccination takes place each year, or oftener if required, to provide for such as have not been vaccinated. If children remain unvaccinated after the first year and are then attacked with smallpox, their parents or guardians are fined.

Should smallpox break out in a house, any persons liable to infection are speedily vaccinated, and in the event of the further spread of the disease all the remaining inhabitants are informed of the imminent danger, and are required to have such of their dependents as are liable to infection vaccinated as quickly as possible, and when requisite, compulsory vaccination is effected.

Re-vaccination is not prescribed by law, but the government regulations recommend it, and require that in boarding institutions which are connected with public educational establishments such pupils only shall be admitted as have been vaccinated within two years. The re-vaccination of soldiers on entering the army is compulsory.

In France, vaccination is not compulsory; a certificate of successful vaccination is required before admitting a candidate to the government schools and also in some private schools and in some trades. It would be very difficult to enforce compulsory vaccination in the present state of public opinion in France.

In Spain, vaccination is not compulsory, the government limiting itself to recommending the practice. The only civil disability to non-vaccination is that unvaccinated children are not admitted to the public schools and some other establishments.

Similar laws obtain in the Netherlands and in Belgium. G.

TREATMENT OF ULCERS OF THE LEG.—Mr. W. E. C. Nourse, F.R.C S., states, in the *British Medical Journal* (June 29, 1872), that he has treated nearly five hundred cases in thirteen years; varicose, indolent, eczematous, irritable, inflamed, sloughing, œdematous, strumatous, from burns, foul, in short all kinds. Failures, two or three per cent. only. Treatment, uniform pressure with strapping and bandages; unsparing pains and trouble to do the work properly; non-disturbance of healing process by frequent dressings; usual diet and mode of living and work, except rarely; sparing use of ointments and poultices; strict avoidance of all depressing medicines, strong or frequent cathartics; removal of all irritants, resins, dirty plasters; no caustics, incisions, or painful applications. Relief from pain and distress, with increasing power of using the limbs, were generally felt after the first two dressings; in more obstinate cases, after three or four. In most cases the cure was permanent. C.

"ERECTILE TUMOR OF THE ALIMENTARY CANAL."—M. Laboulbéne (*London Medical Times and Gazette*, June 29th, 1872), one of the candidates at the Académie de Médecine for the vacancy in the section of pathological anatomy, was fortunate enough in the paper which it is customary to read announcing his pretensions, to be able to lay before the Academy, at its meeting on the 4th inst., an account of what he believed to be an entirely new fact in pathological anatomy—viz., the occurrence of erectile tumors in the alimentary canal. "A patient, aged 74, having vomited blood and passed it by the anus, it was diagnosticated, after a careful examination, that he was suffering from ulceration of the duodenum. He died in the course of some hours, presenting the signs of internal hæmorrhage. A most careful autopsy showed that almost all the organs were in a state of complete integrity, considering the age of the person. In the duodenum, however, a little lower than the orifices of the bile and pancreatic ducts, was found an oblong tumor the size of an almond, its projection being very visible when the blood which filled the duodenum was washed out. Examined under water, the mucous membrane which covered the tumor presented a small, irregular ulceration, whence the recent discharge of blood had evidently issued. Two other blackish points seemed to indicate former orifices, which had undergone repair. On cutting through the tumor, it was found to have invaded the entire substance of the mucous membrane, the muscular fibres and peritoneal coat being still recognizable. The mass consisted of capillary vessels of various sizes, which were dilated at several points, the dilatations being either uniform or only lateral. M. Laboulbène regards the tumor, in fact, as being precisely similar to erectile tumors met with on the surface of the body. Similar tumors, hitherto unobserved in this locality, may have given rise to fatal intestinal hæmorrhages, the causes of which have remained unknown."

Calabar Bean in Tetanus.—At a meeting of the Société de Biologie in Paris *(The British Medical Journal*, June 22), M. Laborde referred to a case of tetanus in which he had given Calabar bean, and where extreme contraction of the pupils was produced. A gramme of the extract had been given. M. Leven stated that toxic symptoms had been produced in several instances where Calabar bean had been given for the treatment of tetanus. There did not appear, he said, to be a single case of recovery from traumatic tetanus under the use of eserine—the active principle of the Calabar bean. Recovery from spontaneous tetanus, on the other hand, frequently took place under any treatment.—*Phil. Medical Times.*

St. Thomas' Hospital, London.—This new, imposing structure, situated on the right bank of the Thames, covers an area of nearly twelve acres of ground. The whole cost of the buildings, with furniture, amounted to about $2,500,000

From American Journals.

Rare Mode of Death in Infants.—At a recent meeting of the New York Pathological Society (*New York Medical Record*, July 1st, 1872), Dr. Janeway exhibited an interesting specimen. The infant died two days after birth. The mother had a very protracted labor, the first stage being twenty-six and a half hours. The child did well for the first twenty-four hours, when it grew pale, passed no water, and in the course of the day died.

At the autopsy, the peritoneal cavity contained eight ounces of thick, black, fluid blood, which had its source in a detachment of the peritoneum from the upper part of the right lobe of the liver. The area of detachment was two inches square. All the other organs were normal. The kidneys, as usual, contained urates in the tubes.

This was the third specimen of the kind Dr. Janeway had seen, and, as far as he recollected, in both of the others the labor was protracted. This was the only one, however, in which the effusion was upon the upper lobe of the organ. G.

Hæmatoxylin —Dr. Arnold writes to the *Philadelphia Medical Times* of July 1st, 1872, on hæmatoxylin as a staining material for animal tissues. The results obtained are much more satisfactory than those given by carmine.

The ordinary logwood extract is finely pulverized in a mortar and about three times its bulk of powdered alum is added. Rub the two ingredients well together, and mix them with a small quantity of distilled water. The complete admixture of the alum and hæmatoxylin is necessary, and this will require fifteen or twenty minutes' vigorous stirring. Having added more water, the solution, after filtration, should present a clear, somewhat dark-violet color. Should it be a dirty red, more alum must be incorporated, and the mixture again filtered. By having an excess of both alum and hæmatoxylin in the mortar, a saturated solution can be obtained which, after infiltration, may be combined with alcohol—one ounce of the logwood fluid with two drachms of seventy-five per cent. alcohol. A much better color can be obtained ,by allowing the mixture, after thorough trituration, to stand for several days before filtering and adding the alcohol. If a scum forms on the surface of the liquid after it has been some time made, a few drops of alcohol and careful filtering will remove it. The coloring with a strong solution, such as has been described, requires but a few minutes, but if a slower tinting is desired, the fluid may be diluted with a mixture of one part alcohol and three of water. The tissue is colored equally well, whether it has been previously hardened in alcohol or in any of the chrome compounds. The nucleus becomes of a brilliant purple, the cell body of a distinct neutral tint. An over-staining causes a blackening of the nucleus, the protoplasm becoming purple. As to the stability of the coloring, specimens mounted in Dec., 1869, show as well as when first put up.

The following is the method of treating pathological new formations.

The cut is placed for a time in the logwood fluid, and is then immersed in distilled water to remove the crystals of alum which might otherwise adhere to it. From water the tissue is transferred to seventy-five per cent. alcohol, when, after soaking for ten or fifteen minutes, it is clarified in oil of cloves—the light oil is the best—and may be either mounted immediately in balsam dissolved in chloroform or in damar varnish. G.

Inoculation in China.—In a recent discussion upon smallpox before the Central Kentucky Medical Association, the *Richmond and Louisville Medical Journal* for July, 1872, reports Dr. Taylor as stating that during a five years' residence in China he had seen a good deal of the disease. It had doubtless prevailed there as an epidemic centuries ago. The method of dealing with the disease in that country was interesting and peculiar. It is the custom with families for the mother, when the child is about two years old, and during a certain season, to visit a neighbor and obtain some of the virus, with which she saturates a piece of cotton. This is inserted into the nostrils of the child and permitted to remain there for a time. The child is put on a light diet, into a cold room, and enveloped to the chin in a bag. Soon the disease develops itself and runs a favorable course, leaving no marks. It is a rare thing to see an adult pitted. Out of millions he had seen only two or three bearing marks of the disease. G.

Syphilitic Lesions of the Viscera.—A paper by James N. Hyde, M.D. (*The Chicago Medical Journal*, July, 1872), contains the reports of two cases of syphilis. In the first, profuse and repeated hæmoptysis was the prominent symptom; but the previous history of the case and the absence of the auscultatory signs of phthisis determined the diagnosis of gummy tumors of the lungs induced by syphilitic infection.

The iodide of potassium was prescribed at first in small doses, which were slowly increased till a scruple was taken three times a day. The patient was at length discharged with every appearance of robust health.

In the second case, the syphilitic infection at length involved to a considerable extent the various structures of the kidneys as determined by the presence of albumen, and of granular and epithelial casts in the urine. For this condition, the muriated tincture of iron was prescribed before each meal, and a scruple of the iodide of potassium in a drachm of the fluid extract of pareira brava after each meal. The case resulted in complete recovery.

The author endeavors to bring prominently to notice the fact of the great value of the iodide of potassium administered in such doses as will fully influence the system. For this purpose, large doses are sometimes essential, and to this end it may be necessary to give two drachms or even half an ounce a day, taking the precaution to dilute the solution sufficiently and to watch its effects each day. G.

Cancer Treated with Carbolic Acid.—Surgeon Bill, U. S. Army, reports (*American Journal of the Medical Sciences*, July, 1872,) four cases to illustrate this mode of treatment.

The first was of an old man from whom an epithelioma of the lower lip had previously been removed. The disease returned in the cicatrix, and circumstances forbade a second operation. Sixteen grains of carbolic acid were given, in divided doses, each day for forty-nine days. At the end of this period, the disease had quite disappeared. The treatment was continued subsequently for a time as a precaution against the return of the malady until the man began to lose flesh and strength. Tonics were then given. The treatment was instituted in 1869, and the disease has not since reappeared.

The second was also a case of epithelioma which had been twice excised from the lower lip, the last time carbolic acid being used locally as an anæsthetic. The parts healed by first intention, but at length became the seat of two hard, wart-like ulcers, which were very painful. Fifteen grains of the acid were given internally each day. The ulcers, nodules and pain vanished and have not returned.

The third case was one of encephaloid of the neck, ultimately becoming of great size. In the earlier stages, five grains of the acid thrice daily arrested the progress of the disease and mitigated the pain, but the patient finally succumbed to the effects of the disease.

A rodent ulcer of the lower lip and chin constituted the fourth case, which is yet under treatment, but with very promising results. The ulcer, from the size and shape of a tablespoon-bowl, has contracted to the diameter of a half-dollar. The pain immediately disappeared, and the swelling of the glands under the jaw in a few days after the commencement of the treatment. The very offensive discharge has altogether ceased. Locally, a 5 per cent. solution of the acid was employed, and five grains four times a day internally. It has not affected his health unfavorably, although the patient has already taken it nearly a month.

Carbolic acid, according to Dr. Bill, should not be given in a stronger solution than three grains to the fluid ounce of water. G.

Cerebro-spinal Meningitis.—In a paper on Cerebro-spinal Meningitis, Dr. J. G. Sewall *(New York Medical Record*, July 1, 1872) arrives at the following conclusions:

1st. That the term "spotted fever" is altogether a misnomer, but comparatively few cases presenting any "spots," and these not characteristic, the same being observed in other profound blood-poisons, as typhus, purpura hæmorrhagica, &c.

2d. That the cause is in obscurity, as much so as that of cholera. Defective sewerage may powerfully aid in its development in certain cases, but does not account for it. Its wide-spread prevalence, extending from Ohio to Massachusetts, under varied climates, in pure as well as vitiated atmosphere, forbids this assumption. It seems to me that an inquiry, pushed in the direction of the late continued droughts, with the imbibition of the products of vegetable decomposition in the low wells and streams, may throw some light upon it. I think all must have noticed a peculiar unpleasant odor and taste in the Croton water through the winter and early spring.

3d. That the disease is not contagious.

4th. That the epidemic here and in the neighborhood has exhibited two forms. In one the brunt of the distemper seems to have invaded the cerebral meninges chiefly, and in the other those of the medulla and spine. The mortality, especially when it occurs suddenly, greatly prevails with the former. All convalescent cases have proved very tedious; and in some, I am informed, paralysis, affections of the special senses, and other neuroses have occurred. G.

Neuralgia Cured by Shock.—The *Philadelphia Medical Times* of May 15th, 1872, contains an account of a case of neuralgia cured by accidental shock, reported by Dr. Rand.

The patient, aged 58, was attacked in the autumn of 1858 with violent neuralgic pains in the right arm and shoulder. There had been no injury to the joint, and its motion was unimpaired. All the nerves of the arm and forearm were affected. The pain at times extended to the spine and more rarely to the left shoulder. Treatment had but little effect. The patient's general condition was deteriorating and the arm was losing power and size. On the 23d of January, 1859, after an evening of great suffering, he slipped and fell on the ice, striking the affected shoulder with great violence. The pain was intense, and he thought at the time that the "arm was torn from the socket." The pain soon ceased, and was followed by a feeling of warmth and "naturalness." The neuralgia ceased and has not yet returned—more than thirteen years since the accident.

Dr. Rand puts the case on record as a simple matter of fact, without attempting an explanation. G.

Removal of Nitrate of Silver Cyanosis.—In the *American Practitioner* for June, 1872, Dr. L. P. Yandell reports two cases of cyanosis from nitrate of silver removed by iodide of potassium. Both patients had formerly been unsuccessfully treated by nitrate of silver for epilepsy, and their skins were deeply stained from its use. Contracting syphilis, they were treated with iodide of potassium, in doses of from ten to sixty grains thrice daily, conjointly with the mercurial vapor bath. In one case only a faint discoloration remains, and in the other it is wholly removed. Dr. Yandell thinks the diaphoresis from the bath may have assisted the action of the iodide, and so suggests in the treatment of cyanosis from nitrate of silver that the vapor bath should be used in connection with the iodide of potassium.

Medical Miscellany.

UNWARRANTABLE DELAY.—The special committee of the Board of Aldermen appointed to consider the petition for a new Board of Health for this city held a meeting Aug. 1st, but did no business of general interest except adjourn until the second Thursday in September. When the popular demand is so unequivocal and the interests of public health are so urgent, why need the aldermen consume time in unnecessary investigation?

SANITARY AS WELL AS PHILANTHROPIC.—The plans for providing picnics and other out-of-door entertainments for the poor children have succeeded so well in New York and Philadelphia that it has been determined to follow the example here. Thousands of forlorn and neglected children in the city, who, perhaps, never drew a breath of pure air before, and whose eyes were never cheered by the sight of green fields or the open sea, will now have an opportunity to obtain occasional and healthful recreation during the oppressive weather of August. We cordially commend the enterprise for its sanitary as well as its benevolent aspects.

BALTIMORE is in serious danger of a water famine, and the city authorities are debating what is the best method of relief. Less than forty-five days' minimum supply is left in the city, and there are no adequate sources from which to obtain more. Little rain has fallen in the vicinity since spring, and all the usual reservoirs are completely exhausted.

THE AMERICAN DENTAL ASSOCIATION.—The meeting of the American Dental Association is in session at Niagara. The session will continue for three days, and it is expected that matters of much interest to the profession will come before it.

ADULTERATIONS.—The French tribunals are usually severe in punishing adulterations of articles of common use, making not only the manufacturers but the intermediaries responsible for the nature of the goods they sell. The agents of two Belgian starch makers, with several wholesale and retail grocers, have just been prosecuted before the Paris court of correctional police for selling rice starch adulterated in the proportion of from 10 to 24 per cent. of potato flour and plaster of Paris.

A DIFFERENTIAL TEST FOR CARBOLIC ACID.—Mr. Morson, of London, points out the fact that, as carbolic acid is often substituted in the trade for creasote, it is desirable to have a ready means for discriminating the two agents; he has found glycerine to answer this purpose, inasmuch as in this solvent creasote is not soluble, while carbolic acid is readily taken up in all proportions.

BRITISH MEDICAL ASSOCIATION.—The fortieth annual meeting began its sessions at Birmingham on the 6th inst. The exercises will continue four days, and will include addresses, meetings for discussion in various sections and sessions of the general medical council.

DEATHS FROM SNAKE-BITE.—It is stated, says the *Homeward Mail*, that in the Tanjore district no fewer than nineteen persons in every 100,000 die annually from snake-bite. Taking the population according to the census, this would give nearly 330 deaths per annum in that district alone; and assuming the rate of mortality over the whole presidency of Madras to be only half that which prevails in the Tanjore district, and the population to be 30,000,000, we get the startling total of nearly 3,000 people annually dying from snake-bites.

DELICATE TEST FOR GALLIC ACID.—Strasbourg (*Pflüger's Archiv*, IV.) announces an extremely delicate modification of Pettenkofer's test for gallic acid in the urine, suitable for clinical purposes. A strip of filtering-paper is dipped in urine, to which a little common sugar has been added, and on this paper, after drying, a drop of concentrated SO^3 is placed by means of a glass tube. If gallic acid is present, the paper assumes an intense violet color.

PAMPHLETS RECEIVED.—Case of Excessive Hypodermic Use of Morphia, &c. Three hundred Needles removed from the Body of an Insane Woman. By Judson B. Andrews, M.D.—A Nomenclature of Diseases, with the Reports of the Majority and Minority of the Committee thereon, presented to the American Medical Association at the Meeting held in Philadelphia, May, 1872. Pp. 94.

Deaths in seventeen Cities and Towns of Massachusetts, for the week ending July 27, 1872.

Cities and Towns.	*No. of Deaths.*
Boston	221
Charlestown	16
Worcester	36
Lowell	28
Milford	5
Chelsea	17
Cambridge	31
Salem	20
Springfield	18
Lynn	21
Gloucester	10
Fitchburg	6
Taunton	6
Newburyport	6
Somerville	9
Haverhill	11
Holyoke	7
	468

Prevalent Diseases.

Cholera Infantum	198
Consumption	44
Dysentery & Diarrhœa	24
Cholera Morbus	12
Pneumonia	10
Scarlet Fever	7
Whooping Cough	7

There were five deaths from smallpox in Boston and one in Cambridge. Of the 234 deaths from intestinal disorders, one hundred and eleven were in Boston, eighteen in Worcester, fifteen in Lynn, twelve in Chelsea, eleven in Salem, eleven in Springfield and ten in Cambridge.

GEORGE DERBY, M.D.,
Secretary of State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, August 3d, 206. Males, 92; females, 114. Accident, 3—abscess, 2—apoplexy, 2—inflammation of the bowels, 3—bronchitis, 1—congestion of brain, 1—disease of brain, 4—cyanosis, 1—cholera infantum, 74—cholera morbus, 3—consumption, 12—convulsions, 8—debility, 8—diarrhœa, 9—dropsy, 2—dropsy of brain, 4—dysentery, 4—erysipelas, 1—fever, 1—scarlet fever, 4—typhoid fever, 7—hernia, 1—disease of heart, 6—intemperance, 2—disease of the kidneys, 2—disease of the liver, 1—congestion of the lungs, 4—inflammation of the lungs, 7—marasmus, 7—old age, 2—paralysis, 1—pleurisy, 1—premature birth, 3—peritonitis, 2—pyæmia, 1—smallpox, 6—tumor, 1—whooping cough, 3—unknown, 2.

Under 5 years of age, 129—between 5 and 20 years, 8—between 20 and 40 years, 35—between 40 and 60 years, 17—above 60 years, 17. Born in the United States, 162—Ireland, 25—other places, 19.

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PALPATION IN OBSTETRICS

AS PRACTISED IN GERMANY.

By JAMES R. CHADWICK, M.D. Harv., Boston.

ATTENTION has of late been called to the abdominal examination and manipulation of the pregnant woman as performed in Germany, and more especially in Vienna. An attempt to state in detail the method there employed, and to consider some of its effects upon obstetric teaching and practice, may not be out of place.

The subject is one which is almost ignored in American and English textbooks, and is but imperfectly taught in the German treatises. The Viĕnna School probably makes more of this method than any other, but, unfortunately, the works of the Professors, Carl Braun and Joseph Spaeth, are so old, that the views of the writers have in many respects changed since these were published, and the books cannot, therefore, be regarded as reliable exponents of the authors' opinions at the present day.

From the verbal teachings of the various professors must therefore be drawn the inspiration which should guide the pen of one who ventures to detail the procedure followed, and the results claimed for this method of practice. That the latter are very great and essentially practical, I would insist upon from the outset, as proved to me from personal observation in the clinics of Vienna and Würzburg. Direct application has been made to the above-mentioned professors and to their assistants, to have all dubious points in their teachings settled.

In thus laying before his professional brethren in America the details and advantages of a comparatively unappreciated subject, the writer will readily be pardoned if he recounts, *in extenso*, the steps to be taken and the inferences to be drawn in all circumstances. That the promised results are not to be gained by an inexperienced hand, must be realized, from the outset, by such as may make a practical use of the following pages. Let those who choose to test the value of this method, not condemn it, if they cannot leave the first or even the twentieth bedside, with "Veni, vidi, vici" upon their lips.

Abdominal examination consists in *inspection, percussion, auscultation and palpation.*

Inspection of the abdomen informs us as to its volume and form; the tension of its walls—the discoloration and scars upon its integument—the changes of the umbilicus—the impediment to respiration, and condition of the ribs; sometimes shows us the movements of the child or of flatus—the twitching of the abdominal muscles—and occasionally a thrill from pulsation of the aorta.

Percussion informs us as to the consistence of the contents of the abdomen, giving the size and height of the womb, as well as, imperfectly, the nature of its contents, the presence of ascites, flatus, or a full bladder.

"The object of *auscultation* is to recognize the fœtal heart-sounds, and the maternal vascular murmurs, and to distinguish them from the transmitted heart-sounds of the mother—from the spontaneous movements of the fœtus—from the umbilical murmur—from the gurgling of gases, and the splashing of fluids in the intestines—and from the aortal pulse." [C. Braun.]

I shall confine myself to this brief definition of the scope of these first three divisions, in regard to which American practice does not materially differ from the German, and shall proceed at once to the subject of this paper—

Palpation, in its two-fold Application to Diagnosis and Treatment.

For the purposes of diagnosis, palpation is the determination of the volume, consistence, form and position of the uterus—the size, position, presenting part and spontaneous movements of the fœtus—the presence of more than one fœtus, or of complicating abdominal or pelvic tumors—the life of the fœtus—the transmitted thrill of the aortal pulse—the fulness of the urinary bladder—the presence of ascites, and, in some measure, the question of a previous birth, by the *sense of touch through the abdominal walls.*

Preliminaries.—The woman, to be examined, should be flat upon her back on a bed; her legs should be drawn up, and her head supported, in order to relax the abdominal muscles and integuments. Corsets, drawers, and all constricting bands about the abdomen or chest should be removed. A sheet should cover the lower extremities, and the night-dress or chemise be drawn up under her breasts, thus leaving the abdomen alone exposed. Should modesty require, the sheet, being the cleaner and looser of the two, may be brought up over the abdomen, though this will interfere, somewhat, with a satisfactory examination. The physician's hands should be warm.

Manual of Palpation.—Standing upon the right of the woman, the physician lays his hands upon her abdomen, and proceeds to explore its contents, as revealed to the touch. This is performed by moving the hands, step by step (so to speak), over its surface, while they are rounded over the inequalities, made prominent by pressure, so as to form an idea of the configuration of what is within. This is best effected by a general "pawing" motion, during which the hands are kept nearly flat upon the abdomen, the pressure upon which is not constant in any one spot, for a rocking motion is imparted to the hands by alternate flexion and extension of the wrist and of the metacarpo-phalangeal articulations. The hands are, during this action, either moved along side by side in the same region of the abdominal surface, or at opposite sides of the abdomen; then the one steadies the uterus and fœtus, while the other studies their angles and form. The latter course is most useful, when the abdominal contents are very movable.

When it is wished to test the consistence or mobility (including ballottement) of the underlying parts, the very tips of the fingers of one hand should, *first*, be placed gently upon the abdominal integument, almost perpendicular to it, and *then*, by a forcible thrust downwards, be brought up against the parts below. As this should be a shove rather than a blow, it may best be executed by an action from the elbow, with stiff but slightly-flexed wrist and hands. In order to examine the presenting part of the fœtus, two other procedures are commonly followed. In the first, the right hand of the investigator, with thumb abducted, is laid, palm downwards, upon the abdomen immediately above the symphysis pubis, the thumb being near the middle of the left Poupart's ligament, and the fingers at the same point on the other side; the ring and middle finger come chiefly into play. The thumb and fingers are then thrust downwards into the abdomen, and approximated, until they grasp between them the presenting part of the fœtus. The distinguishing characteristics, of a presenting head or breech, may best be brought out by giving the part a sort of shake, with loosely grasping hands, by which it is tossed to and fro between the thumb and fingers.

The second method, of palpating the presenting part, is by laying the two hands flat upon the opposite sides of the abdomen, the points of the fingers being directed toward and lying just above the middle of Poupart's ligaments on each side; they are then thrust downwards and inwards towards the cavity of the pelvis, until they come upon and hold between them the presenting part. This method is rarely resorted to, unless the previous one yields an ambiguous or negative result. The examiner is by it enabled to explore deeper in the pelvis, and thus often reach a deep-seated head, which would not be accessible to the former procedure.

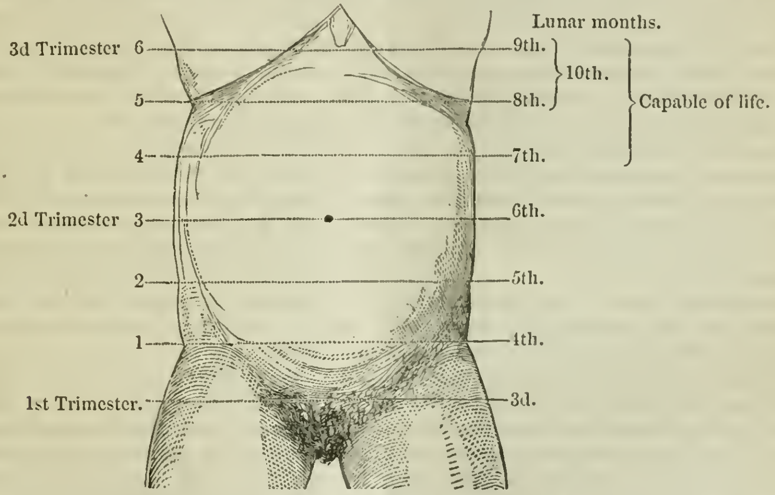
No force, sufficient to cause the woman any real pain, need ever be employed during these manipulations.

Attention to the minutiæ enumerated above is of importance, for a promiscuous punching will not only subject the woman to much discomfort and pain, but will also excite reflex contractions of the abdominal or uterine muscles, and thus defeat the object in view.

At the Bedside.—While facing the woman, the obstetrician lays his hands, with the fingers directed toward her head, upon the opposite sides of her abdomen, to make sure that the long axis of the fœtus corresponds to the longitudinal axis of the uterus; in other words, that he has a longitudinal position before him. This proved, he proceeds to estimate the period of the pregnancy by defining the height to which the fundus uteri rises. This may be done by depressing, as far as possible, the ulnar border of the left hand above the fundus, and measuring, while it is closely applied to the latter and in a perpendicular position, its distance from certain fixed points. The right hand should be occupied in supporting the body of the uterus, should it incline to fall away from the median line of the body.

The Period of the Pregnancy is determined chiefly from the height of the fundus, which depends, in the later months, almost entirely upon the size of the fœtus. The measurement of the abdominal circumference gives no data, as proved by Hecker, Spiegelberg and Richelot, who, for example, found, for the tenth month of pregnancy, variations of 88–116 cm. (H.), 84–108 cm. (S.) and 82–113 cm. (R.).

In transverse and twin pregnancies, this manner of diagnosticating the period gives untrustworthy results, for then the long axis of the uterus will be the transverse, and, in consequence, the fundus will not attain to the same altitude. The general size of the child or children, the size and hardness of the head or heads, and the testimony derivable from the vaginal examination, and from the statements of the mother, must then be relied upon.



The following are the rules to be observed in making the calculation.

The line connecting the symphysis pubis to the ensiform cartilage is supposed to be crossed, at right angles, by six equidistant transverse lines; two intersecting each of the spaces from the pubes to the umbilicus, and from the umbilicus to the tip of the ensiform cartilage, and one passing through each of the last two points.

The normal term of gestation, 280 days (reckoned from the commencement of the last menstruation), is then divided into ten lunar months; these, exclusive of the tenth month, are arranged in trimesters. During the first trimester the fundus uteri is rising to the level of the pelvic brim, and is not accessible to palpation; at the end of the second trimester it has reached the height of the umbilicus, and at the end of the third that of the ensiform cartilage. The altitude attained by the fundus at the end of the several months of each trimester corresponds to the other lines of the scale.

The distance between each of these lines is about equal to the breadth of two fingers, whence the common saying that the fundus stands "two fingers above the symphysis pubis, two fingers below the navel," &c., indicating the end of the fourth and the fifth lunar months respectively, and so on.

During the tenth lunar month, the uterus is generally supposed to be settling into the pelvis; therefore, although it has been increasing in size, the fundus has really been sinking from its position at the end of the ninth month. This descent is, however, far from constant, and should not be allowed for, until further abdominal and vaginal examination has confirmed the supposition. A complete descent of the uterus would, consequently, carry the fundus, in the course of the tenth lunar month, through the various altitudes, through which it had passed in its ascent during the ninth, and bring it finally, at the end of the tenth, to the level at which it stood at the end of the eighth. This is exceptional, so that it is more correct to place the normal height of the fundus, at the end of the tenth month, somewhere *between* the lines corresponding to the end of the eighth and ninth months, with the proviso that the fundus will not infrequently be found as high as the line of the ninth month.

In estimating the period of pregnancy, no mention has, thus far, been made of the other less reliable, but not unimportant, data to be obtained from palpation. These will be more fully described in other connections later, and will here be only mentioned as they successively appear in the several months.

4th lunar month.—The uterus is felt as a rounded, elastic tumor, above the symphysis pubis, and continued into the pelvis; its consistency is soft, and in multipara often uneven. It may be a little harder in several places adjoining the fœtal parts, but the latter are not distinctly felt. Ballottement through the abdominal walls is very rare.

5th lunar month.—Uterus a little to one side of the median line, generally to the right. Spontaneous movement of the fœtus, and abdominal ballottement rarely felt. (Fœtal heart-sounds, in rare cases, heard on auscultation.)

6th lunar month.—Fœtal parts, and, consequently, the presentation can commonly be made out. Spontaneous movements felt. (Fœtal heart-sounds heard.)

7th and 8th lunar months.—All the parts of the fœtus gradually become more manifest to palpation. Fœtus gradually loses its extreme mobility. Head increasing in hardness, as well as in size.

9th lunar month.—The fœtus, constantly gaining in size in proportion to the uterus, obliges the latter to conform more and more to its shape. Ballottement of the head commonly felt.

10th lunar month.—Uterus generally descends into the pelvis, by which the presenting part of the fœtus becomes more or less immovable, and the fundus is caused to fall more forward, by which a flattening of the epigastric region may ensue.

All these signs are to be earlier and more easily obtained in multiparæ than in primiparæ, owing to the greater tension of the abdominal walls in the latter. The fœtus is, of course, supposed to be alive.

This method of determining the period of the pregnancy will be found, in general, satisfactory, despite its manifest imperfections. Three points are important in applying it, however:—that the fœtus should not be in a transverse position; that the fundus should be in the middle line of the body; and that the bladder should be empty; it being evident that a dilatation of the uterus in a transverse direction would shorten its vertical axis, that any deflection of the womb from the median line of the body would lessen its apparent height, and that a full bladder might prevent the uterus from sinking to its proper level in the pelvis.

Fulness of the rectum is said to affect, in some measure, the height of the fundus uteri, but is rarely taken into account. The thickness of the abdominal walls is also to be considered and allowed for; it is determined by taking up a fold between the thumb and fingers. This gives another indication, for it has been proved that the amount of adipose tissue in the walls decreases with each successive pregnancy.

Deformity of the pelvis, of the vertical column, or of the thorax, an unusual amount of amniotic fluid, and the presence of complicating tumors may lead us astray, unless such conditions are discovered and allowed for.

Having thus settled, preliminarily, the duration of the pregnancy, subject, however, to modification or correction after the vaginal examination, the physician proceeds to diagnosticate the position and presenting part of the fœtus, and to detect any abnormal condition that may exist. If the urinary bladder is full, it will be felt as a more or less prominent, elastic tumor, immediately above the symphysis pubis, and must be evacuated.

The consistence of the abdomen varies with the nature of its walls, and more especially of its contents. The walls, when fat, will be soft to the feel, even when somewhat distended; yet in primiparæ, in whom the walls are fatter than in multiparæ, they are apt to be very tense towards the end of pregnancy, owing to the unusual dilatation.

The uterus is felt as an elastic, more or less firm bladder, rounded above and prolonged downwards into the pelvis. Toward the end of gestation, it assumes more nearly the ovoid form of the fœtus; it never, however, quite loses a slight antero-posterior groove in its fundus, the last trace of its formation by the union of Müller's ducts; this is more marked during a contraction. Its shape when pregnant (and uncontracting), or dilated from other cause, is acknowledged to be chiefly dependent upon its contents. Up to the seventh or eighth lunar months the uterus is so distended by the proportionately great amount of liquor amnii, that the fœtus floats free of its walls, and does not mar the symmetry of its rounded outline. After that time, however, the relation of the fœtus to the fluid is gradually reversed, and the uterus assumes, in a measure, the form given it by the fœtus.

Peculiarities of the Fœtal Parts.—The two great extremities of the fœtus, as it lies doubled up in the uterus, are the head and the breech; they are recognized by their individual peculiarities, and by the rounded terminal character common to both.

The head is felt as a round, hard body, entirely free from angles or even prominences, more movable than the breech, and more or less isolated (because of the hollow at the neck) from the neighboring resistant points. When the head is freely movable, one of its chief distinctive features is its *ballottement*, or quick rebound upon the exploring fingers, after a sudden push. The sensation imparted to the hand, in this case, is peculiar and characteristic, being such as is caused by a hard ball floating in a liquid. Its rebound is quicker and more bouncing than that of the breech—which alone could resemble it—because it swings from the body by the flexible neck, and thus describes the arc of a small circle only, whereas the breech, when thus propelled, describes an arc of greater radius, and is restrained by the inflexibility and greater inertia of the body, as well as the more extended surface which it exposes to the resistant action of the fluid; for these reasons the rebound of the breech is slower and less sudden than that of the head. This peculiar feel is enhanced by the different consistence of the two parts, the head being hard and bony, whereas the breech is soft and fleshy. As the size of the head increases, this ballottement is less marked, but as its bones gradually become more ossified, with the increase in size of the fœtus, what is lost in mobility is gained in hardness.

The breech is known by its being directly continuous with the back, by not being symmetrically round but somewhat pointed (the tuberosities of the ischia), by not being hard, and by not rebounding suddenly upon the fingers after a blow (ballottement).

The back is recognized by the long, uninterrupted resistant surface it presents to palpation. It is said that the spinous processes of the vertebræ can, in some instances, be felt; if so, the occurrence must be of extreme rarity.

The small extremities—the legs and arms—are generally detected as small, irregularly shaped bodies, easily pushed about by the hands, often spontaneously changing their positions, and frequently dealing blows to the hand of the observer.

The momentary application of cold to the abdomen is said to increase these spontaneous movements of the fœtus; it is inconceivable that the cold itself should penetrate to the fœtus and excite the unwonted activity, especially if we are to believe Hebra's statement, made in my hearing, that a thermometer, placed between the teeth and cheek, is not sensibly affected by the continued application of ice to the cheek externally; that the reflex nervous current, which might be excited in the woman, in such a case, could have an effect upon her uterus, and thus indirectly produce an impression upon the fœtus, is within the bounds of reason, though improbable. I have had no opportunity of verifying the truth of this assertion as to the application of cold.

At the Bedside.—Having first established the longitudinal or transverse position of the fœtus, and the period of the pregnancy, the next step is to decide upon the presentation which we may have before us.

Longitudinal Positions.—The *head* is first to be sought for, and will commonly be found, by suitable palpation, over the symphysis pubis; not unfrequently, it lies somewhat to one side, especially in the earlier months of pregnancy, when it is less crowded down into the pelvis by the pressure of the fundus uteri upon the breech. If not discoverered over the symphisis pubis, the head must be located in the vicinity of the fundus.

One extremity of the ovoid having been found, the other, the breech, is to be searched for. It must lie in the opposite vertical half to that in which the head lies.

The presenting part, whether head or breech, may be above the brim of the pelvis, where it will be freely movable, and easily accessible to palpation; or it may have descended into the pelvis, and become more or less fixed, in proportion to the depth to which it has sunk, and its size relatively to that of the pelvis. In the latter case, the presenting head *may* still be reached by palpation, or often the neck only, which can be recognized by its appearing, when grasped, too small to be either the head or the breech. The bimanual method of examining the presenting part may, in cases of "deep-seated head," be resorted to with success. When the breech has descended into the pelvis, the part seized by the hand is not small, but, consisting, as it does, of the body and perhaps the legs, it is as large and may even be larger than the breech itself. Bimanual palpation will here only confirm the deep seat of the breech.

The remaining regions of the abdomen are then to be explored to determine in which direction the *back* is turned, and in which quarter the small extremities lie. The *back* is commonly directed either to the right or the left side of the mother, and may be recognized rather by the greater resistance, imparted by it to the lateral half of the abdomen in which it is located, than by its long, resistant surface being absolutely felt, though this last may often happen.

In the opposite, lateral half of the abdomen, the limbs are to be sought for, both by deep pressure, and by a passive laying on of the hands.

Transverse Positions.—In these the *head* and *breech* are first to be distinguished from each other as they lie in the opposite lateral segments of the abdomen.

The *back* and *limbs* are then felt for, with a view to determining whether the former is turned more to the front, or more to the back of the mother. No presenting parts will be detected, an arm or a leg being too small to be appreciable by palpation. All these signs of the position of the fœtus may not be elucidated in every case, but enough will almost invariably be made out to enable us to decide upon the presentations and positions, recognized in the classification adopted. The examiner should not, however, be satisfied until he has tried, at least, to obtain each of the data given above.

Before giving the classification, I must apologize for substituting the English term "presentation" for the exact translation of the German word "lage," which would be "position." This is all the more to be deplored, for "position" [lage] seems (though I have been unable to verify the fact) to have been specially chosen, because of the importance accorded in Germany to external examination, in which the presenting part plays but a subordinate role. The danger of being misunderstood, from the use of the term "position" in a more restricted sense in English and American treatises, seems to justify this change. As no two schools in Germany have the same classification, that used in Vienna will be given, because, in my opinion, it is the simplest and best.

The 3d and 4th occipital presentations, of English and American authors, are designated as abnormal "rotations" of the other two occipital presentations.

After the vaginal examination, in breech presentations, more exactitude is sometimes gained by accepting knee and foot presentations, as subdivisions of the first; very little stress is, however, laid upon this point, as it is devoid of all practical worth.

(The German names are added, to aid such as may occasionally refer to German text-books.)

Classification of Presentations and Positions of the Vienna School.

I.—LONGITUDINAL PRESENTATIONS.
[Längenlage.]

- Head. (Kopflage.)
  - Occipital. (Schädellage.)
    - 1st. Back toward left side. (Rücken nach links.)
    - 2d. Back toward right side. (Rücken nach rechts.)
  - Face. (Gesichtslage.)
    - 1st. Back toward left side. (Rücken nach links.)
    - 2d. Back toward right side. (Rücken nach rechts.)
- Breech. (Steisslage.)
  - 1st. Back toward left side. (Rücken nach links.)
  - 2d. Back toward right side. (Rücken nach rechts.)

Oblique presentations (schieflage) always change into longitudinal or transverse.

II.—TRANSVERSE PRESENTATIONS.
[Querlage.]

- 1st. Head in left side. (Kopf links.)
  - 1st Position (Stellung) | Back forwards. (Rücken nach vorne.)
  - 2d Position (Stellung) | Back backwards. (Rücken nach hinten.)
- 2d. Head in right side. (Kopf rechts.)
  - 1st Position (Stellung) | Back forwards. (Rücken nach vorne.)
  - 2d Position (Stellung) | Back backwards. (Rücken nach hinten.)

It will be observed that this classification and nomenclature are the direct result of the prominence given, in Germany, to the external examination, as all the different presentations and positions can be determined, *exclusively*, from the data thus furnished. From this are the diagnoses made, and then later confirmed, made doubtful, or, in rare cases, refuted by the vaginal examination. The division is extremely simple, and has been proved to give all the indications of real importance in practice.

Before reviewing the signs yielded by palpation, in each of the presentations and positions, I must briefly refer to the assistance furnished, in this respect, by another mode of examination.

Auscultation of the Fœtal Heart.—This may be performed, with the ear applied to the integument of the abdomen, through the medium of a sheet, or, better still, by means of a stethoscope, because this instrument may be applied to any part of the abdomen, without necessitating a constrained posture, or a congested head, on the part of the auscultator; it is open to only one objection, that the woman's abdomen must be laid bare.

It has been proved that the fœtal heart-sounds are, almost invariably, best heard through the back of the fœtus, hence at that part of the abdominal surface of the woman beneath which the back lies. This is based upon the fact that the back is generally forced, by the motions of the fœtal extremities, into immediate apposition with the uterine walls, hence the distance through the back to the auscultator's ear is less than through the breast; moreover, a considerable layer of fluid is apt to intervene between the breast and the uterine walls, a condition peculiarly unfavorable to the transmission of sound.

This rule has but one recognized exception, though, of course, unusual circumstances may render it unreliable. In face presentations, from the unnatural position of the head, the occiput being pushed back upon the vertebral column, the dorsum of the fœtus is separated from the uterine walls on that side, and the breast is thrust forward against them on the other, thus reversing the ordinary condition of things. Here the heart-sounds will best be heard in that region of the abdomen nearest to the breast of the fœtus. In all other presentations, the spot at which the fœtal heart-sounds are heard with the greatest distinctness, will always guide us to the position of the back. If the back of the fœtus is directed toward the back of the mother, the heart-sounds will be but faintly audible, if at all. During contractions of the uterus, the fœtal heart-sounds are never heard.

It will now be seen how auscultation of the fœtal heart-sounds will confirm or refute the data, furnished by palpation, as to the lay of the back.

Signs Obtained in each of the Presentations and Positions through Palpation and Auscultation. 1*st Occipital.*—Head over the pubes. Breech in fundus uteri. Back in left side of abdomen, small extremities in right. Fœtal heart-sounds in left lower segment of abdomen.

2*d Occipital.*—Head and breech as above. Back and fœtal heart-sounds in right side, small extremities in left.

1*st Face.*—Head over pubes, somewhat to left. Breech in fundus somewhat to left. Small extremities in right side, also fœtal heart-sounds.

2*d Face.*—Head over pubes, somewhat to right. Breech in fundus, somewhat to right. Small extremities and fœtal heart-sounds in left side.

Oblique are merely divergencies from one or another of the occipital or transverse presentation, hence the signs will be but modifications of those found in these presentations.

1*st Breech.*—Breech over pubes. Head in fundus uteri. Back in left side of abdomen, small extremities in right.

2*d Breech.*—Breech and head as above. Back in right side, small extremities in left.

1*st Transverse.*—Head in left side, breech in right.

1*st Position.*—Back forwards. Small extremities backwards. Heart-sounds heard.

2*d Position.*—Back backwards. Small extremities forwards. Heart-sounds not heard, or but very faintly.

2*d Transverse.* — Head in right side, breech in left.

1*st Position* as in first transverse.

2*d Position* as in first transverse.

The Diagnosis of Twins is, in general, very uncertain, and, in primiparæ, rarely successful. A depression running across the abdomen is rather the exception than the rule, and, even if present, is not conclusive. Up to the tenth lunar month, the two fœtuses are so movable that they yield but few data on which to base a diagnosis. During the tenth lunar month the following signs, if satisfactorily made out, will justify us in pronouncing in favor of twins, yet there is no condition in midwifery which so frequently baffles the skill of the most experienced obstetricians as this.

1st. The recognition, by palpation, of several similar large fœtal parts (head or breech). Perhaps, while one is deep in the pelvis, two others may be felt through the abdomen.

2d. The recognition, by palpation, of numerous, small, movable, fœtal parts (legs and arms), or their spontaneous motions in several regions of the abdomen.

3d. The exact diagnosis, by palpation, of position of each fœtus.

4th. The immobility of the presenting part (as revealed by palpation and vaginal examination), especially after evacuation of the liquor amnii, while the parts felt through the abdominal walls are very movable.

5th. The perception, by auscultation, of the fœtal heart-sounds at two opposite sides of the abdomen, while they are inaudible in the intervening space.

6th. A striking want of accord between the presenting part (as revealed by palpation and vaginal examination) and the place of the heart-sounds.

In general, an unusual size of the abdomen, a lateral distention of the uterus, the sensation, by the mother, of fœtal motions in many regions are signs of subordinate value, but should, at least, raise suspicions of a multiple pregnancy.

The Signs of Extra-uterine Pregnancy revealed to palpation vary so greatly in different cases, that scarcely any rule can be given for them. The chief peculiarity is the presence of two abdominal tumors, one being the fœtus with its enclosing cyst, in which, early in the pregnancy, movable, resistant parts may be felt, and later even the presentation, &c., of the fœtus be determined; the second tumor is the uterus, somewhat enlarged, but not so much so as the supposed duration of the pregnancy would require. Until the fœtal parts, or their motions, can be made out, or the fœtal heart-sounds can be heard, extra-uterine pregnancy cannot be diagnosticated, by external examination, from any other cystic tumor.

[To be concluded.]

A CASE OF FATAL NARCOTISM

IN A CHILD FOURTEEN DAYS OLD; PROBABLY INDUCED BY A DOSE OF CHLORAL AND MORPHIA ADMINISTERED TO THE MOTHER.

By William H. Campbell, M.D. Harv.

Mrs. W., aged 16 years, was delivered, on the 13th of June, of a fine healthy boy, weighing ten pounds.

On the evening of the 26th, I was called to see the mother, and found her complaining of severe pain in the left iliac region, and ordered an enema of soap and water, which produced free dejections, and relieved the pain. But on next day, the patient being very "nervous," to relieve the agitation and distress, I ordered fifteen grains of chloral hydrate and a fourth of a grain of sulphate of morphine in solution, with directions to repeat if necessary. She took one dose, only, and was soon relieved. About three-quarters of an hour after taking the dose (about a quarter to nine in the morning), she nursed her child who, to all appearances, was perfectly well at the time. But soon afterwards he became very quiet; went to sleep, and was unnoticed till 11 o'clock. At that time, he was observed to be breathing badly, and almost immediately became convulsed.

I saw him about 2½, P.M., at which time the breathing was slow and sighing, being at times entirely suspended for many seconds. The cardiac sounds were tardy and irregular, and the pulse almost imperceptible. The skin was cool. The pupils were contracted to mere points.

I remained with him an hour or more, during which time the pulse ceased at the wrist, the breathing became suspended, and the heart's action, becoming slower and slower, at last apparently ceased. Artificial respiration was resorted to, and was partially successful; even the pulse was for a considerable time quite perceptible at the wrist.

I ordered applications of heat externally, and caused him to be continually roused from his tendency to slumber.

For a time, the heart and lungs were kept at work, but the coma gradually deepened, and he died at 10½, P.M., about thirteen hours after the nursing of the supposed poisonous milk.

Strict inquiry was made, and no other source of poisoning could be discovered.

Certain it is that he had the symptoms I have before observed in little children, who had been poisoned by opium.

We know the effect on nursing children of drugs taken by the mother, cathartics for instance, and I have seen infants made very drowsy from opiates so administered; but I can hardly believe that one-fourth of a grain of morphine taken by this mother, could have produced such a deadly effect upon the child.

Still, as no other cause of the symptoms and death can be discovered, may it not be possible that the chloral hydrate rendered the morphine more dangerous than it would have been by itself.

Any observations on the effects of chloral hydrate on very young or nursing children would, in the present imperfect knowledge on the subject, be an useful addition to medical science. In this view the foregoing case is put on record.

1328 *Tremont St., July*, 1872.

Transfusion.—Dr. W. S. Playfair reports (*London Lancet* Jan. 27) a case of transfusion in post-partum hæmorrhage, unsuccessful from return of hæmorrhage.

Reports of Medical Societies.

SELECTIONS FROM THE RECORDS OF THE OBSTETRICAL SOCIETY OF BOSTON.

SECRETARY, W. L. RICHARDSON, M.D.

FEB. 10, 1872.—The President, Dr. Read, in the chair.

Uterine Hæmorrhage. Tumor.—Dr. Buckingham said that he had been called, Jan. 24th, to see a widow lady, 42 years of age, the mother of five children. She had been suffering from severe hæmorrhages, recurring with more or less severity at varying intervals for several months. She stated that the catamenial irregularity began the first of last June, when she went out of town for the summer. Since that time the discharge had appeared bi-monthly. She returned to the city the last of September. At present, the flow lasts about ten days, and in the intervals there is a perfectly white, inodorous discharge. The physician who was first called to see her had expressed his opinion that it was "the change of life." This diagnosis was made without any vaginal examination. She had been passing large clots unaccompanied by any pain until the afternoon of Dr. Buckingham's first visit, when, after discharging a large clot, she was seized with a severe pain in the uterine region. Her appearance was very markedly anæmic. She was almost blanched. The abdomen was flat. In the pubic region, and inclined to the right of the vertebral column, a tumor could be felt, the exact size of which was not ascertained, owing to the profuse hæmorrhage which demanded immediate attention. The slightest attempt to introduce the speculum only increased the flowing. A finger passed into the vagina detected a small, irregularly-formed tumor, its surface being furrowed, and feeling very much like that of a pine cone. The anterior lip of the cervix uteri could be felt apparently embracing it. The slightest touching of this tumor increased the hæmorrhage. An injection of equal parts of Monsel's solution and water was thrown into the vagina. Laudanum, in drachm doses, frequently repeated, was ordered as a stimulant. Four hours later, Dr. Buckingham saw her again. She had taken half an ounce of laudanum without its producing any narcotic effect, and had vomited once. The hæmorrhage had ceased. The skin was moist and warm. From that time to the present an injection of Monsel's solution and water had been thrown once, and sometimes twice, daily into the vagina. The amount of the iron used has been gradually diminished to the proportion of one-fifth iron and four-fifths water. The patient is greatly prostrated. The pulse is feeble and rapid. More or less nausea has been complained of till within the past few days, when the appetite began to improve. There has not been the slightest hæmorrhage since the first injection of the iron. At first, the injections came away from the vagina having a dirty, brownish, opaque appearance, with a copious, snuff-colored sediment, resembling wet carbonate of iron. Occasionally, little white shreds were observed, and the discharge had always more or less of a purulent character. On making a vaginal examination, Feb. 10th, the tumor was still easily felt, occupying the hollow of the sacrum. Owing to the great abdominal tenderness it was impossible to ascertain its probable point of attachment. The cervix uteri could not be felt. The question was whether it was attached to the cervix, or whether the uterus was inverted, the tumor being attached to the fundus. A portion of the tumor was removed, causing considerable pain. There was no offensive odor connected with it. The specimen was shown to the Society.

Dr. Fifield said that, judging from the gross appearances, the tumor seemed to resemble the so-called "cauliflower excrescence." Many years ago, he had seen a similar case, in which the tumor was removed by the ecraseur. It soon returned, however, with a very rapid growth and the patient died. He alluded to the fact that cancer of the posterior wall of the rectum is sometimes found in connection with malignant disease of the uterus. He had seen one such case in consultation.

Dr. Swan, who had examined the specimen under the microscope, said that it appeared to be a cellular rather than a fibrous growth. It was very juicy. The cells were more or less irregular in shape, with distinct nuclei and often nucleoli. It was apparently of very active growth. As a stroma, a slight, fibrous structure could be made out. Occasionally, traces of fatty degeneration were seen. He had never seen such appearances in a fibrous tumor of the uterus.

Dr. Ellis, who was present by invitation, said that he should be inclined, from a superficial examination, to place the tumor among the sarcomas. It was evidently a cell growth and not of an innocent character. It would properly be classed among the semi-malignant growths.

High Specific Gravity in Bright's Disease.—Dr. Fifield said he had recently been called to see a case of Bright's Disease, in which the specific gravity was as high as 1035. A very careful examination failed to detect any sugar. There were no casts, but crystals of urate of soda were to be seen under the microscope. He said he had not been able to find mention made of a high specific gravity in this disease in any of the medical works he had consulted.

Dr. Sinclair had seen it as high as 1020.

Dr. Buckingham had a case at present under his care in which the urine, examined weekly for a long time, had only once had a specific gravity below 1025.

Dr. Richardson said that Oppolzer taught that a high specific gravity was by no means uncommon in acute Bright's Disease.

Uterine Hœmorrhage. Dr. Buckingham reported the following case. A young married lady, the mother of two children, was seized with a profuse hæmorrhage while on a voyage from Hong Kong to San Francisco. A second attack occurred in San Francisco, and a third on reaching her home in this part of the country. Before Dr. Buckingham saw her, she had been flowing about thirty-three or four days. She was very anæmic. The sound entered the uterus to a depth of several inches. Tents were introduced, but nothing abnormal was discovered. An injection of equal parts of Monsel's solution and water was thrown up to the fundus uteri, a tube being left in the os. The injection was continued till it returned bloodless. For thirty-five days there was no hæmorrhage. At the end of that time, a discharge resembling in appearance and duration the catamenial flow appeared. This returned in twenty-eight days, and the patient has experienced no further difficulty.

Dr. Lyman said that he had under his care a lady, 52 years of age, who suffered monthly, and occasionally bi-monthly, from a copious hæmorrhage. Her last child is now 12 years of age. Once or twice during the last two or three years, the flowing had been so great as to alarm her friends. Meanwhile, there was no impairment of her general health. A year and a half ago, the os was dilated with a great deal of difficulty. The sound entered 3½ inches. A month ago, a second dilatation was made, owing to the patient's having had another severe hæmorrhage. The sound now entered 6¼ inches. No tumor could be discovered by external manipulation. A pair of surgical forceps were introduced and, being opened, were turned about, but no tumor was detected. The forceps were then closed and withdrawn, bringing with them a large mass, made up apparently of the uterine mucous membrane. He considered that the unusual depth of the uterine cavity was caused by a cervical elongation. There was, also, probably, an hypertrophied condition of the mucous membrane of the uterus, or, possibly, a growth of mucous polypi.

Dr. Sinclair said that when he was house-physician at the Mass. General Hospital, he had seen a case very similar to this. The uterus in that case measured between six and seven inches in length.

Case of Cephalhœmatoma.—Dr. Abbot said that he was recently called to attend a lady, 38 years old, in her first confinement. Owing to insufficiency in the uterine contractions in the last stage of labor, the forceps was used. The delivery was accomplished with very little effort. A large tumor occupied the posterior half of the right parietal bone, resembling a caput succedaneum. It was very tense, and contained as much as four ounces of fluid. There was no discoloration of the skin. Beneath the tumor was an apparent depression, surrounded by a hard, bony-feeling ridge. The sagittal suture was unusually broad, and the anterior fontanelle very large. Iodide of potassium was prescribed, under the impression that there might be a communication between the cavity of the tumor and the interior of the skull, and with the hope of exciting absorption of the fluid. The tumor has been gradually subsiding, and at present contains perhaps one or two drachms of fluid. Many years ago, he had seen a similar tumor situated over the occipital bone. The child died at the end of a year of pneumonia. At the autopsy, an opening was found through the occipital bone at the median line, under the base of the site of the tumor. In regard to the origin of these tumors, Dr. Abbot quoted Rokitansky as saying that they are owing to a hæmorrhage under the pericranium which separates it from the cranium. Unless it is absorbed, the pericranium takes on a new formation of bone. Occasionally these tumors inflame and suppurate, giving rise to disastrous consequences.

[At the present time the tumor has entirely disappeared, leaving no trace of its existence. Before it was wholly absorbed, its surface had acquired a sort of parchment feel on pressure, as if from a cartilaginous thickening; the condition said by some writers to indicate commencing ossification of the envelope. The position of the tumor was such that it could not have been caused by the forceps.—A.]

Dr. Sinclair said that he had seen one case in which the tumor lasted three or four weeks and then entirely disappeared.

Dr. Cotting had opened one such tumor, which had then rapidly disappeared.

Dr. Read had twice opened tumors of this kind with good results, and in two other cases in which he had not interfered they had disappeared after a longer or shorter time.

Dr. Richardson alluded to the advice of Wiederhofer, in Vienna, to always let such tumors alone. The results being, as a rule, better than where they are opened.

Dr. Edson had seen two cases, both of which had been opened with good result, the contents being a reddish serum, and not blood.

Dr. Cotting thought that the propriety of the operation in these cases should be decided upon other grounds than because the tumor was a bloody one—as in other bloody tumors.

Dr. Read said he had once opened a bloody tumor just below the right trochanter in a gentleman who had been thrown from a vehicle. A large amount of bloody serum was discharged, but within forty-eight hours it had filled up again.

Effect of Ether on Uterine Contractions.—Dr. Abbot said he had recently attended a lady in her second confinement. During her first labor, which occurred in Edinburgh, she had been kept for a considerable time in an unconscious state under chloroform, the child being finally delivered by forceps. The second labor was short. Ether was given in the advanced stage, but whenever the patient got fairly under its influence, so that the voluntary muscles ceased to act, the uterine contractions ceased, and he was obliged to reduce it to the smallest quantity, so as merely to moderate the pain. When the child was born, it was made to breathe with the greatest difficulty. A frothy mucus streamed from the nostrils in large quantity. Dr. Abbot said that he had no doubt the child would have been born dead from the delay caused by the ether had its use been continued in quantity sufficient to cause insensibility. He was inclined to believe that the forceps had been rendered necessary in the patient's first confinement by the full administration of chloroform. Dr. Abbot said that he mentioned this case on account of the apparent conviction of some gentlemen that the full use of anæsthetics in labor never interferes with the expulsive action of the uterus.

Medical and Surgical Journal.

Boston: Thursday, August 15, 1872.

HARVARD AND MEDICAL EDUCATION.

Several times of late we have had occasion to speak of the course of instruction in medicine at Harvard, and we are glad to reiterate our testimony with regard to the present and prospective success of the new scheme.

The students, who have passed their first and second years' examinations at Harvard, speak well of the new course. They bear the work better than they used to under the old system, and taking their different studies in proper course, they understand their work better. That some good changes may be made in the course of study, we have no doubt. It would be absurd for any one to expect, that the course would be laid out in the best manner at once. It will take numerous trials to make all the machinery operate well together, and it will be strange indeed, if every year does not find some improvement to be made. We are not anxious to have that day come, when there can be no more progress, for we believe, that when progress stops, it is no sign of perfection in the work, but that the workmen are beginning to deteriorate.

If Harvard only keeps on as it has begun, we think our friends in Nashville will not be unlikely to ask by-and-by "Does he write M.D. Harv. after his name?" At first it may seem like a bit of conceit to do so, but the day may come, when it will be important for a man to know where he was born into the medical world.

Harvard has thus far lost a large number of students, consequent upon the change. Upon inquiry, we find that they have been mostly from the British Provinces, and it is by no means unlikely, that others may stay away, who would otherwise come to Boston. What then? Is that going to kill the Harvard School? By no means. We know too well the material of which its officers are made up: and more than that, we know the material of which the medical profession is made. The faculty means work, the Medical Profession means work, and though there are croakers everywhere, the Medical Profession will back the faculty.

"You are mistaken, the Medical Profession care nothing for Harvard," says one, "The men who have obtained their degree, do not care to help along a school which is going to take away their personal students. The man who is going to practise medicine does not care where his degree comes from, so long as he has it." To this we reply, that the Medical Society of this State have already, publicly endorsed the Harvard movement. The men who have had office-students are the men who made the endorsement. Lastly, the man who has no degree oftentimes adds the M.D. to his name, because he knows its value; but he also knows, that he cannot buy the right to add Harv. or Penn., or any other respectable abbreviations to his name, and that should he do so, he would, at once, be marked as an impostor to be avoided.

But look at the position of the Harvard School with the most desponding eyes. Then what? "Why, Harvard must fail," says our friend, "and *get off her stilts and return to her old way.* She must become American again *and pole along her old American keel at four months.*"

We do not agree at all with this view. If the Medical profession of Massachusetts are not prepared to support this school in its endeavors; if the whole profession of the country does not directly or indirectly give their confidence to it, the Harvard Medical School would do better to die, than to go back to the old, absurd plan of medical study, for the mere sake of keeping alive: and the sooner its funeral obsequies can be performed the better.

"TURNED TERRORIST."

THE *London Medical Times and Gazette* has again (July 13th, 1872) assailed the Lyons Medical Society for its position in regard to the use of chloroform as an anæsthetic, and especially M. Diday, whom it would stigmatize as a "terrorist." In a fatal case of its use, M. Diday said, as reported in the *Times*, that he would never recommend direct denunciation of a fellow practitioner, but if called before a legal tribunal he should, remembering that he was a man first and then a doctor, declare to the court what he believed to be the truth, even at the risk of proving prejudicial to the accused operator. M. Diday then offered resolutions for the Society to adopt and to publish for the moral benefit they would exert upon surgeons by making them aware of their responsibility in case of disaster. We quote from the *Times*:—

"The resolutions in question are seven in number. The first six we need not quote, merely stating that they insist in the most absolute manner on the vast superiority and infinitesimal dangers of ether. The seventh is as follows:—

"'In face of these undeniable facts, this Society, appealing to the reason and the loyalty of heart of those of its *confrères* who continue to employ chloroform, entreats of them to decide for themselves whether a surgeon who, able to attain his ends as well, if not better, by means of a less dangerous agent, voluntarily resorts to the most dangerous one, does not assume the same moral responsibility as would a practitioner who, in reference to protection from smallpox, practised at the present day inoculation in preference to vaccination.'

"We owe some apology to our readers," continues the *Times*, "for occupying space with nonsense such as this; but without doing so we could convey no idea of this attempt to set up medical terrorism in so large and enlightened a city. It is nothing less; for who, in face of such an anticipatory denunciation as this, would venture to resort to an agent, mishap during the employment of which might ruin his reputation and bring him under the tender mercies of French law. Fortunately, the orator's audience was not carried away by his declamation, and referred his damnatory conclusions to a committee, wherein we hope common sense and impartiality may not be without their advocates."

A little "common-sense and impartiality" one would expect to influence any but the *Times and Gazette* and "fanatical" (that is the pleasant word our contemporary has for those on the other side) advocates of a deadly drug, the *unnecessary* use of which has *already killed hundreds!* Surely, if professional respect for life is not sufficient, the law itself should interpose for the safety of those who seek relief, not death, at the hands of operators. We hope the Lyons Society will have the common-sense to pass and publish the resolutions, and thus aid in stopping the worse than "nonsense" we have been obliged to listen to so long in favor of this homicidal practice.

The Hospitals.

MASSACHUSETTS GENERAL HOSPITAL.

Inflammation of the Portal Vein; Numerous Abscesses in the Liver; Enormous enlargement of that Organ; Death; Autopsy. [Service of Dr. Ellis.]

On Oct. 16, 1871, a Prussian weaver, 18 years of age, entered the Hospital. He stated that his general health had always been good, though he had worked hard and had been troubled by pain in the chest without cough, for the preceding three months.

Nineteen days previous, after drinking two dippersful of ice water while in a heated condition, he was obliged to give up work at once and go to bed with pain in the epigastrium and diarrhœa, followed by prostration, chills, thirst, loss of appetite and vomiting. From that time to his admission, his diarrhœa had been constant, amounting to several discharges daily. Two or three times, there had been a slight epistaxis. His skin was observed to be hot and dry, tongue thickly furred, brown and dry in the centre, pulse 96. Temperature 104½° F., respiration 32 and mostly thoracic. No rose spots were found, nor did the tenderness of the epigastrium extend to the lower part of the abdomen. His face was pale, and expression dull. The morning after entrance he had a chill, followed by heat. The chill was repeated on the evening of the next day and followed by a wakeful night, and he continued from day to day to have chills at irregular intervals. The temperature varied from 98° F. to 104° F. The pulse remained somewhat rapid, but rarely rose above 100. The dejections, two or three in number on each day, were semi-solid and of a light yellowish-brown color. The mind remained perfectly clear. On some days the chill was absent, but was replaced by perspiration at various times during the twenty-four hours. There was nothing worthy of note in the urine, which contained no albumen nor bile pigment. At the end of the first week he vomited, with much retching, a small quantity of light green mucus; complained constantly of being tired, and his prostration increased. During the second week the pulse became more rapid, sometimes reaching 136, the respiration being 36. The epigastrium became more tender, and chills and sweating still continued.

A physical examination showed the apex beat of the heart to be under the fourth rib, and somewhat removed to the left. The pulsation was very distinct, while there was none below in the ordinary seat. To the left of the sternum, below the second rib, there were noticed marked accentuation of the second sound, and a systolic souffle. At this point the pulsation was marked. There was puerile respiration in the upper part of both lungs, more especially the right, but no respiratory murmur in the lower part of the lungs in front, below the line of dulness. The pulsation of the veins of the neck was increased. The epigastrium was extremely tender, and the area of dulness was very extensive. In front it covered both sides of the body, reaching from a line drawn horizontally through the umbilicus up to a level with the fourth rib on the right side and the second on the left side of the chest. Just below the line of dulness on the left side was a feeling of resistance as from the edge of some solid body. The abdomen above this line was somewhat protuberant, as from inward pressure. Both pupils and both pulses were equal. The pulses of the posterior tibial and of the radial were also equal. There was much complaint of pain in the right hip, preventing his lying on that side, and requiring opiates. Beef-tea was ordered, but he continued to lose strength. During the third week, the diarrhœa ceased, and defecation was accomplished by enemata. The sweating became extreme, his pillow being soaked with it. The pulsation of the heart was now communicated to the whole region of the abdomen. The face was flushed, while the skin of the hands was cool. He continued to take large amounts of beef-tea (60 oz. per diem), and morphine for the pain in the hip.

Towards the close of the third week, the pain in the hip and vomiting became continual. Pulse 130. The souffle heard over the pulmonary valves disappeared. The face and conjunctiva were of a distinct yellow hue.

In the fourth week, matters continued to grow worse. Pulse 140. Respiration 40, and labored. The urine was acid, of greenish color, and contained bile-pigment and a precipitate of urates. Emaciation became more marked. The dulness in the back now extended up to the lower angle of the scapula. The prominence of the epigastric region was more marked. Towards the latter part of the week, the patient began to look more sunken. Sordes on the teeth became abundant, and there was some epistaxis. Two days before death, the fluttering pulse rose to 148, while respiration declined to 20. Death took place on the 29th day after entrance.

Autopsy by Dr. Fitz, 26 *Hours Post Mortem.*—The skin and conjunctiva were intensely yellow. No rigor mortis. The pericardium contained 12 ounces of clear, yellow serum. Old pleural adhesions were abundant, especially on the left side of the chest. In the left pleural cavity was ℥viij. of serum, and the lung was compressed. There was some air in the lower lobe of both lungs, which had a yellowish tinge. There was a moderate amount of œdema pulmonum.

In the peritoneal cavity was a pint of opaque yellow fluid, containing several small, soft, fibrinous coagula. The peritoneum was normal except the surfaces of the diaphragm and liver which were united by delicate, soft, friable adhesions.

The spleen was at least three times the normal size. Weight 1½ pounds. The follicles were enlarged to a considerable degree, and the pulp also increased in volume.

The kidneys were somewhat larger than usual, and the capsules easily detached. On section, the organ was anæmic, yellow, the cortical substance increased in volume, the tubules opaque, and the Malpighian bodies indistinct. Under the microscope, the epithelium of the cortex was faintly granular [parenchymatous nephritis].

The liver was enormously enlarged, extending downwards into the right iliac fossa and upwards to a point an inch and a half below the left axillary space. Weight, 13 lbs. 2 oz. Greatest transverse diameter, 13 inches; greatest thickness, 4½ inches. The capsule in general was smooth and transparent, except at the superior portion, where the adhesions existed. The left lobe was softer than ordinary. The fibrous tissue surrounding the vessels in the portal fissure was swollen, opaque and œdematous, suggestive of cellular as well as of serous infiltration. Where Glisson's capsule entered the liver, recent adhesions existed between the peritoneal investments, from which, when torn apart, a yellow, purulent fluid exuded, apparently from the interior of the liver. The portal vein, outside the liver, contained an obstructing thrombus, red outside, decolorized within. There were no coagula in the hepatic vein or artery.

On making a section through the liver, its interior presented numerous abscesses, all more or less connected with each other, or at all events in immediate relation. In the right lobe was a large central abscess, with dark-yellow ragged walls, filled with opaque yellow pus. Connected with it were other smaller abscesses, and still smaller ones, of the size of peas, were found without such soft centres or so distinct a coloration. A similar state of things existed in the left lobe, except that the central abscess was nearer the surface. The thrombus of the portal vein was softened just within the liver and the vein considerably disturbed. The softened mass exactly resembled the contents of the abscess. Farther in, a short distance beyond the softened part of the thrombus, the calibre of the vein became smaller, the thrombus still obstructing and softened centrally, and then the vein opened freely into the central abscess. This was the same in both lobes.

The acini of the liver were enormously enlarged, at least thrice. Microscopically, the cells of the liver were enlarged, cloudy, near the abscess converted into granular debris and the interstitial tissue largely infiltrated with cells.

The gall bladder contained two ounces of a gruel-like fluid, in no way resembling bile. The cystic and common ducts were open. Peyer's patches and the solitary glands presented minute pigmented spots. The mesenteric glands were much enlarged. Periphlebitis suppurativa existed about the superior mesenteric vein near its entrance into the portal.

As the patient could not give a very good account of himself, owing to a want of intelligence or ignorance of the English language, the diagnosis of the case presented various difficulties.

The diarrhœa, epistaxis, prostration and some other symptoms suggested typhoid fever, but the persistence and frequent occurrence of chills and rigors pointed very strongly to some other affection of an acute inflammatory character, in which suppuration had probably taken place. The extensive dulness occupying the lower part of the chest and upper part of the abdomen, fixed the attention at once upon these regions. The absence of respiration and all morbid auscultatory signs, showed the integrity of the lungs, while the fixed character of the line of dulness on change of position made it unlikely that there was any effusion in the pleural cavities.

It seemed very probable, therefore, that the dulness was attributable to the upward pressure of the diaphragm by the parts below it. This also explained satisfactorily the position of the apex-beat of the heart, as that organ must also have been forced upward. The pulsation, souffle and accentuation of the second sound were also attributable to the change of position, as nothing in the history indicated previous cardiac disturbance.

The disease being below the diaphragm its exact seat and character were to be ascertained. It was evident that this upward pressure must be the result either of the enlargement of the liver and perhaps other organs or of the presence of some new formation, liquid or solid. Until the jaundice manifested itself no symptom pointed directly to the liver, and as this biliary derangement might be the result of some functional disturbance, it could not be relied upon as evidence of fatal hepatic disease. Repeated examinations were made with the hope of detecting the lower edge of the viscus, but nothing was ever found except the outline of a solid body in the left hypochondrium occupying the seat of an enlarged spleen. This fact, taken in connection with the extent of the dulness, which would indicate an *acute* enlargement of the liver greater than has ever been noticed, led us to explain the change in some other way. The solid new formations require more time for their development, and when they attain such size are almost inevitably tangible. We were therefore reduced to the supposition that fluid, probably of a purulent character, circumscribed by adhesion, was the principal cause of the dulness and that the liver if diseased was secondarily so. The examination showed that the view taken of the abdominal disease was incorrect. The error was principally attributable to the impossibility of detecting the lower edge of the enlarged liver. This same difficulty was met with in a similar case seen since, and again prevented a positive diagnosis though the disease was suspected.

[The pulsation could be explained by the continuous retention of the anterior surface of the heart against the wall of the chest and the souffle by the flexion of the vessel. An accentuation implies an obstacle to the free circulation of the blood; such might be found in the diminished area of the lungs and perhaps in the position of the vessels. The same obstacle might also increase the pulsation which was so marked to the eye.—E.]

U. S. MARINE HOSPITAL; CHELSEA.

Compound Fracture of Femur; Recovery.

[Dr. A. B. Bancroft, surgeon in charge.]

J. S., aged 35, sailor. Patient while furling sail fell a distance of about thirty feet to the deck, causing a compound fracture of the right femur in the middle third. So great was the force of the fall that the broken ends of the bone penetrated the soft tissues of the thigh on its outer aspect. A small portion of one of the fragments was imbedded in the planking of the deck. The accident occurring at sea the man received no surgical treatment for a month, when he was admitted to the hospital.

On entrance, there were two openings in the outer aspect of the thigh communicating with the bone and discharging a considerable quantity of laudable pus. The fracture was firmly united with marked deformity; the fragments overriding and causing about two inches of shortening. His general condition was good. He was etherized and the femur refractured. Extension with a weight and an outside splint, extending from the axilla to the foot, were applied to the limb. Sand bags were placed on each side of the leg to render the apparatus more firm. His diet was nourishing and one pint of ale was allowed him daily. In four weeks from the time of entrance the union of the fracture was assured; in nine weeks it was quite firm, and at the expiration of eleven weeks the patient was permitted to leave his bed. There was only 3-4 of an inch shortening, and although there was some false anchylosis of the knee joint consequent upon the long confinement in bed, he left the hospital walking well with the aid of a crutch.

Ovulation in Hens.—The ovary of a hen is said to contain about six hundred embryo eggs, of which, in the first year, not more than twenty are matured. The second year produces one hundred and twenty; the third, one hundred and thirty-five; the fourth, one hundred and fourteen; and in the following four years the number decreases by twenty yearly.

Medical Miscellany.

Charlestown Dispensary.—The resignation of Dr. J. A. McArthur as one of the Physicians of the Charlestown Dispensary was accepted at the last meeting of the Board of Managers. The vacancy has not as yet been filled.

The new buildings of the Hotel-Dieu, Paris, which were nearly completed when the war broke out, will, it is understood, be finished without further delay by the Conseil Municipal. There are twelve other Hospitals in Paris.

The value of vaccination and re-vaccination is becoming generally appreciated. Marshal McMahon has given orders for the entire army of Paris to be vaccinated or re-vaccinated. A measure has been submitted lately to the Chilian Congress to make vaccination compulsory. The question of passing some legislative enactment on this subject is at present under discussion before the States-General of the Netherlands.

Deaths from Chloroform. — On June 8th a man, aged 36, was placed under chloroform to have an operation on his jaws performed, and two minutes after the chloroform was given he expired. A verdict was given that he died of paralysis of the heart caused by chloroform.

May 27th, a patient died of chloroform while being operated on for osteomyelitis of the femur by Prof. Billroth in Vienna. Tracheotomy was done, but the attempt to save the patient's life failed.

Pepsine.—Careful analysis of this drug, as manufactured by three of the leading chemists of London — Savory & Moore, Squire, and Morson — proved it to have "scarcely any," "very slight," and "extremely slight digestive power." It is therefore useless as a drug, unless, as is possible, it may have "other virtues not purely chemical."

Zinc Water-Tanks.—Of the unhealthfulness of these for domestic purposes, there would seem to be no doubt. A recent French periodical contains an article by M. Zinrek, who had examined water which had long been kept in such tanks, and who has found that the water dissolves so much the more zinc as it contains more chlorides, such, for example, as the chloride of sodium. The water also takes up larger quantities of zinc in proportion to the length of contact. Boiling does not, however, precipitate the zinc from water charged with the metal. A sample of the former was tried, in which the chlorides were in small proportion, but which had been a long time in a zinc tank; as much as 15 grains of zinc was found in each quart. To prevent this state of things, M. Zinrek advises that the tanks be coated inside with an oil paint, with ochre or asphalt for the base; but no minium, ceruse, or carbonate of zinc should be used.

Correction.—In the advertisement of the Cleveland Medical College, in our issues of Aug. 1 and 8, the word "Phrenology" was accidentally substituted for *Pharmacy*, in the Professorship of Dr. John E. Darby.

Books Received.—A Manual of Qualitative Analysis. By Robert Galloway, F.C.S., &c. From the Fifth London Edition. Philadelphia: H. C. Lea. 1872. (From the Publisher.)—Diseases of the Throat. By J. Solis Cohen, M.D., &c. New York: William Wood & Co. 1872. (From the Publishers.)—The Physiology of Man. The Nervous System. By Austin Flint, Jr., M.D. New York: D. Appleton & Co. 1872. (From the Publishers.)—A System of Surgery. By S. D. Gross, M.D., LL.D., D.C.L., &c. Fifth Edition. In two Volumes. Philadelphia: Henry C. Lea. 1872. (From the Publisher.)—The Ten Laws of Health; or how Disease is produced and can be prevented. By J. R. Black, M.D. Philadelphia: J. B. Lippincott & Co. 1872.—Thermic Fever, or Sunstroke. By H. C. Wood, Jr., M.D. Philadelphia: J. B. Lippincott & Co. 1872.

Pamphlets Received.—The Use of Pepsine in the Diarrhœa of Infants. By James S. Hawley, M.D., Brooklyn, N. Y. Pp. 16.—Catalogue of the Graduates and Officers of the Medical Department of the University of the City of New York. Published by the Alumni Association. Pp. 112.—The Medical Society of Ohio—The Annual Address of the Retiring President, W. W. Dawson, M.D., Cincinnati.—Recept-Formulare aus der Wiener Klinik fur Syphilitische des Professors v. Sigmund. Wien. Pp. 66.—Sur un nouveau Dissolvant de l'Iodure Plombique et de son Application à la Pharmacie. Par Donato Tommasi, Docteur ès Sciences. Paris. Pp. 8.—Hematuria Endemica. These de Concurso do Dr. José Luiz de Almeda Conto. Bahia.—Eusaio sobre o Beriberi no Brazil. Por Dr. J. F. Silva Lima. Bahia.

Died,—In Chelsea, 5th inst., George W. Otis, M.D., aged 72.

Deaths in fifteen Cities and Towns of Massachusetts, for the week ending August 3, 1872.

Cities and Towns.	*No. of Deaths.*
Boston	206
Charlestown	16
Worcester	40
Lowell	26
Milford	9
Chelsea	9
Cambridge	30
Salem	21
Lawrence	15
Springfield	8
Lynn	28
Gloucester	14
Taunton	5
Somerville	17
Haverhill	9
	453

Prevalent Diseases.

Cholera Infantum	156
Consumption	42
Dysentery & Diarrhœa	28
Typhoid Fever	15
Pneumonia	14
Cholera Morbus	9
Whooping Cough	8

Six deaths from smallpox occurred in Boston. Of the deaths from intestinal disorders, ninety were in Boston, eighteen in Lynn, eighteen in Worcester, eleven in Cambridge, nine in Somerville, and eight in Gloucester. Of deaths from typhoid fever, seven were in Boston.

George Derby, M.D.,
Secretary of State Board of Health.

Deaths in Boston for the week ending Saturday, August 10th, 191. Males, 98; females, 93. Accident, 3—apoplexy, 1—inflammation of the bowels, 3—bronchitis, 2—inflammation of brain, 4—disease of brain, 3—burned, 1—cancer, 1—cyanosis, 4—cholera infantum, 64—cholera morbus, 2—consumption, 17—convulsions, 4—debility, 3—diarrhœa, 11—dropsy, 2—dropsy of brain, 7—dysentery, 4—delirium tremens, 1—erysipelas, 1—scarlet fever, 5—typhoid fever, 4—disease of heart, 7—disease of hip, 1—infantile disease, 1—intemperance, 3—disease of the kidneys, 2—congestion of the lungs, 1—inflammation of the lungs, 7—metritis, 1—marasmus, 4—measles, 1—old age, 3—paralysis, 3—premature birth, 2—peritonitis, 1—suicide, 1—smallpox, 4—disease of spine, 1—unknown, 2.

Under 5 years of age, 105—between 5 and 20 years, 7—between 20 and 40 years, 38—between 40 and 60 years, 19—above 60 years, 22. Born in the United States, 140—Ireland, 38—other places, 13.

THE

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Original Communications.

TYPHOID FEVER.

By J. B. S. JACKSON, M.D.

(Concluded from page 96.)

IN the 43 fatal cases of fever that I have spoken of, the "solitary glands" were "developed" in 20, not developed in 11, and in 12 they were not noticed. Negative facts of importance should be recorded as well as the positive, but as I have already said, my records, though generally much detailed, were not made with reference to any future use, and I can only say, now, that in a large majority of the above 12 I believe that the solitary glands must have been very little if at all affected. These glands are said by the best modern anatomists to consist of a single closed follicle, and to resemble those that in the aggregate make up a Peyer's patch. I have spoken of the small patches that differ in many ways from the larger ones, but I have never seen a gradation from one follicle upwards. If the solitary are so related to the aggregate glands, I should suppose that when the last were inflamed in typhoid fever, the first would be also; and, if not, I should infer that there were none to be inflamed. But, when there is any affection of them, it is something very different from that of the large patches. So far as has been generally observed, here as well as elsewhere, the solitary glands appear as small, rounded, dense, solid bodies, in or just beneath the mucous membrane, and without the least redness or any other appearance of inflammation. There are, however, exceptions. In one case, for instance, in which these bodies were very numerous, and some of them as large as a pea, there was a broad red areola around some of them near the cœcum. In another, they were large, very prominent, "vividly red" in the lower part of the ileum, and one was ulcerated at the summit; the inflammation being strongly marked, but the color very different from that of the Peyer's patches, as usually seen. In a third case, very many of the solitary glands were inflamed, and many were ulcerated at the summit and stained with fæces; but the ulceration in this, as in some other cases that might be mentioned, seemed confined to the summit, and did not extend into the depths of the little body, as in the inflamed Peyer's patches. Louis found these bodies more or less diseased in twelve cases; somewhat red in two, and ulcerated towards the cœcal valve. Reynolds says they are enlarged in "many cases" of typhoid fever; appearing at first sight like a fine miliary eruption, afterwards becoming larger and more opaque, and the mucous membrane then looking as if studded with pustules; but he has almost always found them solid, and only once a yellow pultaceous matter within. In regard to these "solitary glands," I have never had any definite opinion, and I see that Aitken, as well as Louis, questions their follicular character. They have been called tubercles, and, I suppose, on microscopic evidence; but there is probably as little relation between them and what the modern pathologists call tubercles as there is between the pus corpuscle and the white blood globules. If the microscope shows differences between what had been regarded as similar formations, it shows an identity in others which in their nature must be very different.

In the large intestine the solitary glands were developed in 11 cases, not developed in 3, and in the others no record was made; in regard to these last, I think we may infer, as in the case of the small intestine, that in a large majority they were but little if at all affected. The form of disease was not very unlike that already described, but the granulations were generally smaller, and occasionally showed the black point that suggests the idea of acne punctata. Ulceration was very rarely seen. Ulcers, however, that I supposed to originate in the mucous membrane and not in the follicles, I found in twenty-six cases. In 3 their absence is recorded, and in the remainder I suppose that it generally might have been. Inflammation of the mucous membrane, without ulceration, is also recorded in three cases. Whatever the disease was, it was generally most marked upon the right side, and especially towards the cœcum, as elsewhere observed; but to this rule there were some marked exceptions. In one case the solitary glands were greatly enlarged, and more or less so throughout the intestine, though they were less numerous upon the left side. Several showed an orifice upon the summit, and several were ulcerated. There were also a dozen ulcers or more in the mucous membrane, and mostly in the rectum. In a second case, very extensive and acute inflammation from the cœcum to the rectum. In a third, about a dozen ulcers in the descending colon. In a fourth, considerable acute disease, and mostly in the first third, but extending into the rectum. Peyer's patches were very little inflamed in this case, and there was more disease in the large than in the small intestine. One case was remarkable for the great number of ulcers; there being thirty-seven of the size of a split pea in the first four inches, and some in the ascending colon and arch. In one, the appendix cœci was ulcerated. Louis found the solitary glands affected only eight times, and they were generally few in number, red, and mostly ulcerated at the summit. Ulcers in the mucous membrane he met with fourteen times, and in ten cases they were in the cœcum, but extending more or less to the further parts of the intestine; there were generally only two or three, rarely a dozen. Aitken found the colon ulcerated seven times in twenty cases. Reynolds found the small and large intestine equally affected in many cases; occasionally the large intestine was most so; and in one the solitary glands of the large intestine were almost exclusively the seat of disease—the small intestine being unaffected. There appears, then, to be a considerable variety in the changes that have been observed in the large intestine at different times, in typhoid fever.

The enlargement and inflammation of the mesenteric glands, which is so constantly found, has been regarded by some as an independent affection, but I have always looked upon it as secondary to the intestinal—as an inflammation of the bronchial and inguinal glands is secondary to pneumonia and gonorrhœa. The fact, however, observed by Louis, that they may be inflamed opposite to patches that are healthy favors the idea of an independent origin, and I think that I have seen such cases; but I would not so readily allow it when the patches in the neighborhood are inflamed. In some of my cases they had gone on to suppuration, and had become cheesy; and this has been often enough observed elsewhere. Niemeyer remarks that they not merely become caseous, but at last cretify. I should suppose, however, that every trace of fever would have passed away long before anything like cretification would be found.

Of the other organs in typhoid fever, Rokitansky and Niemeyer have found the stomach congested, but they say nothing of ulceration. Louis found this last four times; and I have found it five times in twenty-five cases in which I examined the organ. The spleen was very generally enlarged and otherwise changed in the early stage of the disease, as usual; but sometimes in the third week, if not in the second, I think I have found that it had resumed its normal appearance. Louis found it from three to five times larger than in health in seven cases, and after the thirtieth day normal or nearly so. Rokitansky and Niemeyer say that it is from two to six times larger than natural; but this is far beyond what has been observed here. These last authors make the very important statement that the organ may rupture spontaneously—an accident that I have never seen any other allusion to—and that it would be well for those to bear in mind who are in the habit of making deep pressure over the organ, in their curiosity to feel for and limit it. Rokitansky alludes to suppuration of the spleen and other organs, and in one case I found lymph and pus in the spleen in two places, with peritonitis over it. Peritonitis has occurred twice at the Hospital, I think, independently of perforation. These cases I made no record of, though I attended the examination of one of them, and I think that in that one, if not in both, the disease was supposed to have been communicated from a case of erysipelas, as I have seen to happen in the case of a healthy individual. Louis speaks of what are sometimes regarded as *post-mortem* intussusceptions, but I know of no case of that other form of intussusception that is so generally fatal, excepting the one that occurred here some years ago in the practice of Dr. J. Bigelow, and that I examined and have a full record of; the specimen is preserved in the Medical Society's Cabinet, and the case is published in the Catalogue. Hæmorrhage from the female genital organs is a frequent occurrence, according to Niemeyer, but I have examined only one case in which it had been observed. The respiratory organs, he says, are always affected, as shown by redness of the mucous membrane and hypostatic congestion and condensation of the lungs, and this has been generally seen here; but I am not sure that I have ever seen proper pneumonia, to which he refers as sometimes occurring. The edges of the epiglottis I have several times seen ulcerated, or rather eroded, as described by Louis; the fibro-cartilage being exposed, and the surrounding substance perfectly healthy. Ulceration of the pharynx he also describes, and Aitken says that it occurs in one third of the cases, but I have never observed it, so far as I am aware. And, neither, have I ever seen lymph in the larynx, which Louis met with in three cases. Dr. Putnam, Sen., however, had a case of typhoid fever during the past year that recovered, but in which, judging from the symptoms, there must have been this complication.

As Niemeyer speaks of Rokitansky's description of the anatomical appearances in the ileum in typhoid fever as "unsurpassed," I would like to allude to some statements that he makes, and that may be found in the English edition of his work on Pathological Anatomy. He refers to the many hundreds of cases of fever that he has seen; and it would have been much more satisfactory if he had given the results of his immense experience more definitely than he has, even if his cases had not been tabulated; but the Germans, laborious as they are, do not seem disposed to this kind of investigation. The condition of the mucous membrane before the patches become inflamed he describes with some minuteness. He evidently refers to the membrane generally, and not to the membrane around the individual patches as they become successively inflamed; and one can hardly conceive how he could have had any opportunities to make such an observation. Typhoid fever is a disease that generally comes on insidiously, and patients do not die in the very earliest stage, as they sometimes do in scarlet fever and in the fevers of the tropics. The affection of the jejunum, the colon and the stomach he regards as "anomalies." The cœcum has often been found ulcerated; but Rokitansky, without alluding to this point, only speaks of the tricocephalus dispar that he has found in greater or less numbers—probably a mere coincidence, and that some observers would hardly think worthy of notice. The typhous product, he says, presents the greatest analogy with a cancerous, medullary growth; but, though every one must have noticed the gross, physical resemblance to which he undoubtedly refers, it seems very strange to speak of an analogy between formations that are so entirely different in their nature—it being understood that the English term expresses the idea of the author. The development of the typhous process, he says, is sometimes arrested, and we shall then find no intestinal affection, in which case we must watch closely the other mucous membranes; "or, the process, without being localized, may run its entire course in the blood." This doctrine will, I think, strike most of us very strangely; and, as coming from so high an authority, it would be well to remember it when we have diagnosticated typhoid fever and find nothing on dissection. We should very naturally ask Rokitansky how he recognized the disease, and how he explained the death. He considers the disease very unfrequent before puberty, and the same remark, essentially, has been made here, as already stated. We must not, he says, consider every typhous appearance of Peyer's patches in early life as genuine typhus. In the acute dysentery of one young child, at least, I have seen very intense inflammation of the patches, as shown by deep redness and a thick coating of lymph; and, within a year or two, Dr. Webber exhibited a very fine specimen of acute follicular inflammation of the large and small intestine, and in which the patches were affected very much as in the above case of dysentery; but no one would have thought of confounding either of these cases, anatomically, with typhoid fever. The mesenteric glands, he says, may reach the size of hens' eggs—certainly a very extravagant statement in regard to a single gland, however true it might be of an aggregation. He also frequently finds extensive extravasations of blood, and this is a statement that I have never met with in any other author, nor verified here. Typhous laryngeal phthisis, with necrosis of the cartilages, he says, is not unfrequently a complication of typhoid fever. I have already referred to the very simple erosions along the edges of the epiglottis, with exposure of the fibro-cartilage, that I have met with, and nothing more has ever been seen here, nor have I ever seen any allusion to the very grave disease described by Rokitansky. Phthisis may supervene on typhoid fever, and the disease may commence in the larynx, as it does sometimes, but it would be only a sequel of the fever and no proper part of it. He probably uses the term "phthisis" in a broad sense, and refers to some destructive disease of the organ, and of which, as I say, I have no knowledge.

Boston, August 7, 1872.

PALPATION IN OBSTETRICS

AS PRACTISED IN GERMANY.

By JAMES R. CHADWICK, M.D. Harv., Boston.

(Concluded from page 116.)

Complications of Pregnancy revealed by Palpation.

The Death of the Fœtus during pregnancy can never be recognized with certainty, but may be suspected from the following signs: the general flabbiness, and want of fixed shape of an abdomen, which had previously been firm and resistant, as well as difficulty in defining the outline of the uterus; the impossibility of feeling the spontaneous movements of the fœtus (very unreliable); the softness and non-resistance of the fœtal parts, and their remaining passively in any spot into which they are pushed; the non-ballottement and soft feel of the head.

Confirmatory evidence is derived from the fact that the fœtal heart sound, which have been audible to a skilled anscultator, can no longer be detected in any region of the abdomen. (The heart sounds are best heard when the back is directed forwards, and the limbs backwards and out of reach, and *vice versa.*)

The Size of the Fœtal Head relatively to that of the pelves. This, in all cases of narrow or deformed pelvis, is of the utmost importance as determining, whether the delivery should be left to the course of nature, or whether manual or instrumental interference is called for. The size and hardness of the head may be presumed from the general size of the fœtus, and estimated directly by palpation. The head can seldom be fairly grasped, and its dimensions arrived at, except when over the pubes, and even then, it requires long and constant practice, to enable its size to be calculated with any degree of accuracy.

Hydrocephalus is diagnosticated from the large size, and the abscence of the usual hardness, of the head, as well as from its remaining above the pelvic brim, in spite of strong uterine contractions, when previous easy births, or an exact measurement has established the normal dimensions of the pelvis.

Contractions of the uterus are plainly detected through the abdominal walls, and their character determined. The different conditions of inertia, atony, exhaustion, paralysis either general or partial, and tetanus, of the uterus during delivery, are thus recognized, and appropriately treated. Colicky pains, from contractions of the uterus before the full term, may be distinguished from other similar pains and proper means be taken to avert a threatening abortion or miscarriage.

Retroversion of the pregnant uterus is commonly first indicated by retention of urine, and colicky abdominal pains; on palpation the bladder will be detected, extending often as high as the umbilicus. The uterus will be out of reach.

Rupture of the uterus, during natural delivery, occurs, according to C. Braun, from the violence of the contractions, and is located, transversely, at the junction of neck and body. It can only be certainly diagnosticated from the vaginal examination, but may be suspected from the sudden cessation of pains, previously severe, from the great change in the position of the fœtus, and the retreat of the presenting part, from the recognition of the contracted uterus as a hard turner upon one side, and from the greater distinctness with which the fœtus having escaped into the peritoneal cavity, is felt. When the fœtus does not thus escape, the fundus uteri commonly falls to the opposite side to that in which the rupture has taken place, owing to the local paralysis of the latter. The abdomen becomes large, and fluids collect in its deep parts.

Tumors, such as fibroids, ovarian cysts, &c. The former will often mar the symmetry of the uterine contour, and may then be carelessly taken for the small extremities, or even a second fœtus; their persistence in one spot, in spite of manipulation, and their possible want of accord with the position of the fœtus will dispel the illusion. Ovarian cysts can generally be made out as distinct elastic tumors, separated from the uterus by a well-marked furrow.

Hindrances and Expedients.

Tension of the abdominal walls, when due simply to the unusual dilatation as often happens with primiparæ, may generally be overcome by attention to the details of examination, given in the early pages of this paper. Yet this condition will occasionally prove so obstinate as to render palpation fruitless. Percussion may then be resorted to.

Muscular contractions of the abdominal and uterine walls. The latter are involuntary and unavoidable, unless through the delicacy of the explorer's touch. The intervals between the spasms must then be made the most of. The abdominal muscles are, for the most part under the influence of the will, and should but rarely prove an obstacle to their examination. The woman's attention may often have to be distracted by conversation, or better still, she should be required to hold her mouth open, or to count in order to prevent her straining.

Hydramnios may cause such distension of the uterus as to interfere seriously with palpation. The uterus will then be large and symmetrical, even yielding fluctuation in extreme cases. The fœtus is freely movable, and ballottment easy. The fœtal heart sounds are weak or unheard. Too small an amount of liquor amnii, on the other hand, will allow the uterus to cling to the fœtus before the contractions, and enable a long and tedius first stage of labor to be foreseen.

Tenderness of the abdomen is rarely so great as to interfere, seriously, with careful palpation, through a circumscribed spot may be rendered so sensitive, from the continual kicking of a lively child, especially if it be against the ribs, as not to bear the least touch. Cases, of which I have seen one, occur occasionally, in which, at any time during the early months of pregnancy, an hyperæsthesia of the peritoneum is excited by spasms of the uterus ; many of the local symptoms of a subacute peritonitis, such as pain,extreme tenderness on pressure, &c., are present, with entire absence of the constitutional disturbance, effusion and other diagnostic symptoms of such a condition. The true nature of the affection has never been satisfactorily shown, so far as I can learn. It is pleasant however to feel that this state will improve with time and treatment, and have no prejudicial effect upon the regular course of the pregnancy, provided abortion is, at the time guarded against. Such a complication would evidently prevent all palpation, as might also a true circumscribed peritonitis, such as is caused by the bursting of the cyst in extra-uterine pregnancy.

Adipose tissue, when deposited, in great amount, in the abdominal walls, adds greatly to their thickness, and may thus form a serious hindrance to abdominal examination. No change occurs in the uterine walls from successive pregnancies, except a little unevenness of surface in some instances.

Ascites and Flatus may occur during pregnancy and prevent all access to the uterus through the abdomen. They are distinguished from each other by percussion and fluctuation. Graviditas nervosa is a form of the latter, which is often met with at the time of the grand climacteric and may then give rise to much doubt and distress.

Internal and External Examination combined.

Thus far external examination alone has occupied our attention, but we must not pass from the application of this to diagnosis without a few brief words upon the effect of its combination with the internal examination. This method is superfluous after the presenting part is fixed or but slightly movable. When, however, it is freely movable, or when the fœtus is too small to be made out by palpation alone, and again in complicated or obscure cases, this combination may be employed to great advantage. Before the uterus has risen above the brim of the pelvis, i. e. in the first three lunar months, a finger in the vagina and a hand upon the abdomen may hold between them the enlarged uterus, and from its size, growth, consistency, &c., distinguish it from other uterine as well as extra-uterine tumors. Soon after this period, the fœtus or its head may often be first recognized by its bouncing from one to the other of the hands, when thus held, and made to strike it.

Still later in the pregnancy, a hand upon the abdomen will often be required to bring down and retain the presenting part of the fœtus within reach of the finger in the vagina. This is especially useful in oblique presentations, where the presenting part lies in one of the iliac regions, and may be pushed down into the pelvis by a hand applied outside of it. The same may be effected in many transverse presentations. In determining the size of the fœtal head, when presenting, this combined examination will be manifestly advantageous, for the head can then be held between the hands, and its dimensions estimated with tolerable accuracy by an experienced obstetrician.

As an assistance to vaginal examination, the left hand upon the abdomen is in such constant use in Germany that no student is ever allowed to omit it. It should not, then, be applied over the fundus uteri only, and made to press the fœtus down into the pelvis, but should be moved to various regions of the abdomen. When there is any tendency to what is called "hanging abdomen," the hand will be more efficacious when pushing upwards from immediately above the symphysis pubis. In the diagnosis of twins, some aid may be derived from noting whether a push, administered to the presenting part, is transmitted to the hand upon the fundus uteri and *vice versa.*

Palpation in its application to Treatment.

Version by external manipulation alone was first recommended by Wigand in 1807, and has given so much better results than the old method by internal manipulation, or the combined one more recently brought into notice by Braxton Hicks, as to be universally given the preference in Germany. The fact that, if unsuccessful, it is perfectly harmless, and in no wise prevents the other modes of version being resorted to, raises it above reproach. Wigand himself says, "we should never neglect to try it," and later generations but echo his opinion.

The theory of the operation is merely to aid nature in her attempt to bring the fœtus into the normal, i. e. longitudinal, position. It is, of course, derived from our observation of the many transverse positions that change, in the last months of pregnancy, into longitudinal, or are converted into such, by the uterine contractions, after labor has commenced.

The conditions most favorable to the operation are thin, flabby, non-sensitive abdominal and uterine walls, considerable liquor amnii, and not too large a fœtus; these render the fœtus accessible to manipulation and freely movable.

During contraction of the uterus, and, with very few exceptions, after rupture of the membranes, nothing can be effected by external treatment. The most suitable time is when the membranes are still intact, and the uterus makes quite long pauses between the contractions. A fully dilated os uteri is an advantage, for then, should version by external manipulation prove unsuccessful, and during the attempt the membranes be accidentally ruptured, version by internal manipulation may be undertaken, before the fœtus has become fixed by the hugging of the uterine walls. This dilatation of the os uteri should, however, not be waited for, because the liquor amnii may escape at any moment, and thus the golden opportunity be irretrievably lost.

As to the question whether any good results from version during the last few months of pregnancy, in fact at any time before labor has commenced, I can only say that in Vienna the operation is now *never* performed at such times; Professor Spaeth has, in my presence, repeatedly pronounced any version, undertaken before labor begins, as useless. Its advocates elsewhere admit that the change in position is rarely permanent, and in these instances the operation, in all probability, but forestalls the working of nature. The proper time is as soon as possible after the first pains are felt.

If, then, it is to be performed before the os uteri is dilated, and consequently before vaginal examination will yield reliable results as to the presentation, the importance and even necessity of basing the diagnosis upon the data furnished by external examination again asserts itself.

Manual of the Operation.—The advantage of having the woman upon the side in which the part to be brought down lies, and thus, by causing the fundus to fall to that side, directing the head towards the entrance to the pelvis, seems to me to be overbalanced by the difficulties of the manipulation, and, especially, the impossibility of properly applying the force; the tendency of the whole operation is, moreover, to bring the fundus uteri into this desirable situation. I have seen the operation several times performed in the dorsal decubitus, and am satisfied of its superiority. This applies to the complete cross presentation, and not to the oblique, where lateral decubitus alone, if properly chosen, will result in a longitudinal presentation of the fœtus.

Let the woman, therefore, be upon her back, and the physician upon that side of the bed in which the future presenting part lies, for the force will then be most comfortably and efficiently applied. Either cephalic or pelvic version may be performed, the rule being to bring down into the pelvis that end of the fœtus which is nearest to it. If, however, the fœtus is so movable as to render either an easy task, the head is to be chosen, from the lesser mortality attending those presentations.

While facing the woman's feet, the obstetrician lays the palm of the farther hand above and outside of the part to be brought down, and endeavors to propel it in the direction of the entrance to the pelvis. With the other hand he is, at the same time, pushing and rubbing the opposite end of the fœtus toward the fundus uteri. Great force should never be applied, but manipulation and friction during the intervals between the contractions, and steady pressure during the contractions, to prevent the loss of ground already gained, will generally effect the desired result. An assistant to work over one large extremity, while the operator confines himself to the other, is often useful. An occasional pressure upon the lower end, in the direction of the long axis of the fœtus, to start it out of the hollow in which it lies, is advisable.

As the contractions of the uterus may, unaided, perform the version, we should never overlook the chance of success through their increased violence, due to the manipulations. It is even well at times to await the effect of these.

If the end of the fœtus approaches the pelvis, agreeably to our wishes, the pressure should be maintained, until we are satisfied that the part will remain in its new place, during the pauses as well as the contractions of the uterus. For this purpose, turning the woman upon the side, whence the presenting part has descended, is to be recommended. Should it even then not remain fixed in the pelvis, it must be held there, until the os uteri is sufficiently dilated to justify a rupture of the membranes; where *absolutely necessary,* this last may be done before the os is fully dilated, but ever with great circumspection. Pads and bandages, to keep the fœtus in place, are of little avail. The moment the presenting part is firmly engaged in the pelvis, the completion of the labor may be left to nature.

Two conditions will contraindicate this method of version, a narrow pelvis and necessity for a hasty completion of the delivery ; in all other cases it should invariably be tried, provided the obstetrician is not called upon too late.

To prevent hæmorrhage, in cases of placenta prævia, many authorities consider that the leg serves as a better tampon than the head, and that podalic version should then be elected.

When the fœtus is dead, great difficulty may be experienced in turning thus, because of the want of firmness in the fœtus ; as soon as this state is recognized, podalic version or decapitation may even be undertaken.

In a premature birth, the version by external manipulation will generally be easy, owing to the proportionally great amount liquor amnii.

Mattei and Hegar recommend the change of breech into head presentations, to which there can certainly be no objection, provided it can easily be accomplished.

In Germany it is never thought necessary to employ an anæsthetic during this operation.

Before leaving the subject of palpation in treatment, I might be charged with oversight, did I not mention the advantage of friction and manipulation to augment the intensity of weak uterine contractions, as well as the great acceleration to delivery, in cases of "hanging abdomen," from supporting, with the hands or a bandage, the fundus uteri, which, by its falling forwards, directs the presenting part against the promontory of the sacrum, and not into the entrance to the pelvis.

I will not farther emphasize the importance of palpation in obstetrics, but trust that the persual of these pages has made the theory appear rational, and will persuade others to give it a fair trial in practice.

In justification of the high value which I claim for my subject, I will append two or three opinions expressed by leading German obstetricians.

Naegele and Grenser say "this mode of investigation has a great value, and cannot be sufficiently recommended."

Schroeder, in the last edition of his treatise, expresses himself as follows: "For the small practitioner, the determination of the fœtal presentation from the external examination, under ordinary circumstances, allows less opportunity for error, than the internal, when it alone is undertaken. The first should never be omitted, since the results derived from the internal examination are subjected, through it, to the most admirable test."

Hegar of Freiburg goes even farther, and says, "If the attention of our women was called to the great advantage of this (external) examination, they would soon come to demand it. Pregnant women can be examined much oftener and by more persons externally than internally. The chief cause of the many fatal results after transverse positions is, I am perfectly convinced, that the external examination is placed in the second line, and far too great a value attributed to the vaginal examination in the instruction of students and midwives. In theory, the importance of palpation has long been recognized, but, in practice, it is too little used, and in the schools for midwives especially, too little stress is laid upon the fact that this method of examination is more important than the internal. Were this not so, then we should not be continually hearing of neglected transverse positions." Can testimony be stronger! What then are the chief advantages which have compelled so strong expressions of opinion, in favor of palpation in obstetrics.

1st. That, by it, the period of the pregnancy may be approximately estimated.

2nd. That the diagnosis of the fœtal presentations and positions may be made during the later months of the pregnancy and the first stage of labor, when internal examination yields very meagre results.

3d. That twins, extra-uterine pregnancy, the death of the fœtus, the size of the fœtal head, complicating tumors, and many other conditions may, by it, be recognized, long before the vaginal examination would reveal them.

4th. That the external examination may be made many times, and by many persons, without any risk of doing harm. On this account it recommends itself especially, for purposes of instruction.

In the way of treatment.

1st. That version can be performed by external manipulation with much greater chance of success than by the internal, and with this gain *to the mother* that the danger of inflammation and rupture of the uterine walls is reduced to a miminum, that in case of hæmorrhage or other threatening symptum, turning by external manipulation may be resorted to, if thought expedient, much earlier than the old method; and *to the child* that it thereby escapes the greater mortality attendent upon breech presentations.

The length of this paper bids me desist from considering the application of the combined method of treatment, and refer the reader to the able article by Braxton Hicks, published a few years since in the "Transactions of the London Obstetrical Society."

Vevey, Switzerland, July 15, 1872.

Etiology of Phthisis.—In a very elaborate article, based upon careful experiments, which appeared in the last number of *Virchow's Archiv*, by Dr. Sommerbrodt, of Breslau, on the question "has blood, which has escaped into the air-passages, any etiological effect in the production of pulmonary tuberculosis?" the writer decides that it is only one among the many predisposing causes in tuberculous individuals, and that it acts by setting up catarrhal pneumonia.

Correspondence.

INTERNATIONAL OPHTHALMOLOGICAL CONGRESS.

Morley's Hotel, Trafalgar Square,
London, August 3d, 1872.

Dear Dr.,—I have not forgotten my promise, and have kept a close watch on our Congress for the benefit of your Journal readers. This letter leaves by mail to catch the Liverpool (Aug. 3) boat for New York.

Wednesday evening (July 31) there was a preliminary meeting for inscribing our names. One hundred and twenty have done this. Of these, eleven are members of the American Ophthalmological Society, viz.:—Drs. H. W. Williams (Boston), A. D. Williams (Cincinnati), C. R. Agnew (New York), H. D. Noyes (New York), John Green (St. Louis), Wm. Thomson (Philadelphia), W. F. Norris (Philadelphia), Ezra Dyer (Philadelphia), D. B. St. John Roosa (New York), Chas. E. Rider (Rochester, N. Y.), and B. Joy Jeffries (Boston).

At 11, A.M., Thursday, August 1st, the Congress assembled in the Library of the College of Physicians, Trafalgar Square. The walls were hung with the portraits of the old English celebrities in medicine. Harvey's picture hung behind the President, and above were his dissections of the bloodvessels of the human body.

Mr. Critchett, in behalf of his London *confrères* welcomed, in French, the members of the Congress. He named the officers of the meeting, viz.:—President, Prof. Donders; Vice Presidents, Prof. Williams, of Boston, and Prof. Warlomont, of Brussels; Secretaries, Mr. J. Soelberg Wells and Prof. Zehender.

Prof. Donders then took the chair, and, in French, thanked the Congress for the honor conferred, and opened the meeting by the appointment of a number of distinguished ophthalmic surgeons as Honorary Secretaries, each name being received with applause.

The Congress then listened to the reading of the appended papers.

Dr. B. Joy Jeffries (Boston) had the honor to read first on the "Use of Ether in Ophthalmic Surgery." He subsequently answered the objections and questions raised during the discussion of his paper.

Dr. De Wecker (Paris) followed "On the Surgical Treatment of Optic Neuritis by opening the Optic Nerve Sheath." Considerable discussion followed this communication.

Dr. Warlomont (Brussels) presented a paper on "Sympathetic Ophthalmia," which gave rise to a long discussion, lasting till 1.30, P.M., when an adjournment took place.

The Congress re-assembled at 3 o'clock. Dr. Bader (London) exhibited a case of pannus treated by sulphate of quinine; also a case of conical cornea treated by Graefe's method.

Mr. Critchett (London) exhibited another patient with conical cornea, also operated on by Graefe's method. The following papers were then read:—

Dr. Taylor (Nottingham) on "Extraction of Cataract."

Dr. Rosier on "Proposed Alterations in the Operation of Linear Extraction of Cataract."

Dr. Warlomont (Brussels) on "Proposed Changes in Cataract Operations by Extraction through the Cornea."

Dr. Hansa (Copenhagen) on "Forty Cases of Extraction of Cataract by Liebreich's Method." A long discussion followed this communication, after which the reading of papers was resumed.

Dr. Dudgeon "On the Mechanism of Visual Adjustment." This paper was objected to by the President as containing nothing new from what he (Prof. Donders) had already published.

Dr. Woinow (Warsaw) on "Accommodation and Refraction in the Eyes of Children."

Dr. Carreras (Spain) on "Cysticercus within the Globe." Discussion.

Dr. Galezowski (Paris) on a "Case of Aneurism of the Central Artery of the Optic Papilla."

At 6 o'clock the Congress adjourned till Friday, at which time the following papers were read:—

Dr. Vose Solomon on "Section of the Ciliary Muscle for Myopia." Discussion.

Dr. Carter (London) on a "New Form of Demonstrating Ophthalmoscope and a New Form of Perimeter." Discussion.

Dr. Hogg (London) showed another form of divided lens to use in the same method of ophthalmoscopy.

Dr. Brettaner (Trieste) exhibited a series of fields of vision drawn from Förster's perimeter.

Dr. Wolfe (Glasgow) reported on eighty-two cases of traumatic cataract which he had operated on.

Dr. Pagenstecher (Wiesbaden) exhibited drawings for an Atlas of Pathological Histology of the Eye.

At 1.15 the meeting adjourned till 3, when Mr. Taylor (Nottingham) showed a patient operated on by him in the method proposed in the paper he had previously read.

Dr. Zehender (Rostock) described a case of congenital malformation of the eyes in a child. The specimen and drawings were exhibited.

Dr. Robertson (Edinburgh) described a case of Irideremia.

Dr. Doijer (Leyden) related the case of a medical student with total absence of the iris from its position.

Dr. Galezowski (Paris) spoke of four cases of the same peculiarity.

Dr. Williams (Cincinnati) read a paper on "Ulcus Corneæ Serpens treated with Carbolic Acid," and on the "Treatment of Chronic Iritis by warm Poultices."

Mr. Cooper (London) on "The Ophthalmoscope as an Optometer in Astigmatism.

Dr. Javal (Paris) showed how the same ideas had been carried out on the other side of the channel.

Dr. Jeffries (Boston) on "Test Types and Visual Acuity."

Dr. Oldham on "An Improved Form of Ophthalmoscope."

Dr. Schröter on a "New Form of Binocular Ophthalmoscope after Dr. Coccius."

Dr. Samelson (Manchester) on "Diphtheritic Conjunctivitis."

Dr. Lobo (Rio de Janeiro) on "Distances between the Anterior and Posterior Surfaces of the Crystalline Lens and Cornea."

Dr. Noyes (New York) on "Muscular Asthenopia and its Complications."

Dr. Williams (Boston) here, in behalf of the American Ophthalmological Society, invited the International Congress to visit the United States at its next meeting in 1876, the Centennial Anniversary of American Independence. The proposition and invitation were greeted with applause, and the decision deferred till Saturday.

Thursday evening a very pleasant conversazione took place at Mr. Bowman's, where the Congress met the Medical gentlemen of London. Optical and ophthalmic instruments were exhibited in profusion; also, very many opthalmoscopic pictures, some of which showing optic neuritis were clearly explained by Mr. Hughlings Jackson.

Friday evening a soirée took place at Mr. Critchett's house, and the Congress was delighted with vocal and instrumental music as well as with an elegant entertainment.

Saturday, 11 A. M. Mr. S. Watson (London), exhibited his plan of applying cold to the eye by water in small rubber bags; he also read a paper on Dermoid cysts and showed drawings of the same.

Mr. Teale (Leeds) read a paper on his operation for Symblepharon and showed two patients who had been operated on.

Dr. Wolfe (Glasgow) explained his own method for this operation.

Dr. Javal (Paris) presented the report of the committee of the Congress, recommending metrical and decimal series in trial glasses.

Dr. Schmidt read a paper on the distension of the optic nerve sheath, in optic neuritis.

Dr. Green (St. Louis) read a paper on test types modified from Snellens.

Dr. Williams (Boston) repeated his invitation for the Congress to visit America in 1876.

Dr. Delgado invited it to Madrid.

After considerable discussion the Congress decided to meet in America, in 1876.

At 1 o'clock the Congress adjourned till 4, when Mr. Power (London) read a paper on transplantation of the Cornea.

Dr. Williams (Boston) showed his needles for stitching the Cornea in cataract operations.

Mr. Bowman (London) spoke of the following operations:—1st, for precising and placing an artificial pupil; 2d, for removal of dense papillary membranes; 3d, for double iridectomy on the same eye by two knives at the same time; 4th, for conical cornea, by trephining the cornea and other methods.

Dr. Quaglino (Naples) spoke on "Sclerotomy in Glaucoma."

Dr. —— on "Cutting the Sclerotic for Glaucoma."

Dr. Noyes (New York) exhibited eye specula, and showed his form of register to be used in writing out cases.

Dr. De Wecker (Paris) then proposed that, the hour of three o'clock having arrived, the Congress listen to Prof. Donders, which the members did with the greatest attention. He spoke of and exhibited an instrument for measuring the distance between the lens and cornea. He then criticized and exploded Förster's idea that accommodation will take place when the lens was absent (great applause). He also spoke on traumatic keratitis, and in reference to the pus cells and the corneal corpuscles.

Dr. DeWecker proposed thanks to the London members for the reception given to the Congress. Prof. Donders in behalf of the Congress, thanked the College of Physicians for the use of its Hall, and in a very impressive and elegant manner bade the Congress adieu.

The members then took the train for the Crystal Palace (Sydenham), where the dinner was to take place. Many eloquent speeches were made, which will appear in the report of the Congress. The Compte Rendus will appear in English, and will contain some other papers besides those alluded to.

I have thus kept run of the Congress, and have done all I could for you. I am now giving ether here, and will report to you on the subject in my next letter.

Yours truly, B. J. J.

Medical and Surgical Journal.

BOSTON: THURSDAY, AUGUST 22, 1872.

MEDICAL EVIDENCE.

SOME of the newspapers, we have observed, are following up their old trick of making themselves merry over medical evidence. The late Baltimore poisoning case made much fun for them, and the Fisk-Stokes trial gave them, for dull and hot weather, a chance to be brilliant and facetious.

There are several things to be borne in mind, and among these medical evidence is only one:—

First. The trial of Stokes was in New York; and when it is said that "these conflicting opinions (medical) may well appall a more intelligent body of men than a New York jury," the writer should remember the difficulty of getting any jury in the case, and he should remember the general history of New York politics and crimes and trials for the few months or years past.

Secondly. There are those who think they see an absurdity in jury trials as at present conducted. One has a limited right to challenge without reason. It is by no means difficult to influence some one man on many juries, and even to get the one man upon a jury to influence it. We remember hearing testimony in a case of criminal abortion some years ago, which was conclusive to us. On speaking upon the certainty of conviction to a medical friend as we were leaving court, he replied, that there was no chance of that, for he recognized among the jury a man who had asked him to perform the same act. We long since came to the conclusion that a jury is not the body to appeal to for justice.

Thirdly. Medical evidence is often deserving of castigation. One object in publishing a medical journal is to benefit the medical profession, and, through the medical profession, the whole public. We therefore say, without hesitation, that, being very much like other men, some of the profession are very likely to be influenced like other men. We fear that the testimony of some of them may be purchased as much as that of some editors, lawyers, clergymen and merchants. We fear that being called into court, as medical experts, some of them are mistaken, and think that they belong for the time to the party who called them. It is not so. They may be engaged to aid one or other counsel in making up the case; they may be engaged to point out the ignorant or false statement of some conceited or perjured witness; but upon the stand the medical expert swears to tell "the truth, the whole truth, and nothing but the truth."

The medical witness should bear in mind that he is telling his story to men out of his own profession. He has no right to attempt making a display. He has no more right to talk to a jury in scientific words, when other words will tell an intelligible story, than he has to talk to them in Hebrew. He has only to bear in mind that he is to tell what he knows, and he need not be one bit afraid to say "I don't know." He will show more ignorance, and prove it too, if he undertakes to enlarge upon what is not perfectly familiar to him. There is no reason to fear hard usage in a cross-examination, if he tells "the truth and nothing but the truth." The court will protect him, in Massachusetts at all events, against any ill-usage by counsel, if he only works honestly. If a question is put which he does not understand, it will be repeated if the repetition is desired; and if some sly dog couples questions together for the purpose of confusing the witness, he has only to ask for a division of the question. Let him remember, above all things, that the opposing counsel does not know him, has no personal feelings towards him, wouldn't recognize him a week hence, and is only doing the best for his client in court, as he himself would do the best for his patient in bed.

There are mean men in all professions and trades. We are very sorry that it is so, and that the medical profession is not exempt from the general disease. If, in consequence of this peculiarity of mankind, "the public must take its choice between suicide, shock, opium, probing and peritonitis," as in the Fisk-Stokes case, we can only say that when some business men who are *otherwise* good members of society are willing to do their duties as jurors, instead of playing soldier and playing sick, we shall have fairer trials and more justice from juries. As for medical men and their testimony, criticize the particular men as much as you will, and show up all the false evidence you can, but remember that the profession is not responsible for individuals, nor for individual statements.

THE VALUE OF OLD MEDICAL WORKS.

In a notice of a recent small work on the general characteristics of acute catarrhal affections (*L'Union Médicale*, June 22d ult.), the writer says:—Here we have, by good luck, a physician, who, though attached to the modern anatomical school, acknowledges that there are pathological conditions, well marked and daily under our observation, to which, nevertheless, it is impossible, even on the dead subject, to assign an exact seat. Such are acute catarrhal affections, which the Germans have tried in vain to point out, on the table of the amphitheatre or in the laboratory of micrography, which form a group well studied by the ancients, yet, with all our means of investigation, are little accessible to philosophical analysis.

M. Bougeron's book, says the writer, is worth reading and study. Its closing words are quite noteworthy:—

We must go far back he says, and examine old works that are no longer read now-a-days. We ourselves have proved how fruitful and valuable, nay inexhaustible, is this mine of observations, which our ancestors have accumulated slowly and silently through many ages. At each step in the study of their works are to be found truths, since forgotten or now thought to be new. To these treasures it is necessary to add fresh acquisitions; and thus—rejoining the long-interrupted chain of medical traditions—with equal trust in the past and confidence in the future, to advance firmly in the designated way, which, though seemingly obscure, will surely lead to the discovery of truth.

Use of Sulphate of Quinine in Menorrhagia.—Dr. Deneffe reports *(Annales de Gand*, June, 1872) two cases from his own practice, confirming the opinion of Monteverdi and Bouqué on the efficacy of sulphate of quinine as supplementary to ergot of rye.

The first was that of a young lady whose menses had usually been regular, but exposure to cold had suddenly suppressed them at the period immediately preceding her illness. Her period coming on again, the flow was abundant, and soon amounted to a menorrhagia. As she was away from home, a physician was called, who prescribed perchloride of iron, but without effect. Returning home to Dr. Deneffe, he ordered sulphate of quinine, to be taken in 1¼ gr. pills every hour; this almost immediately checked the hæmorrhage.

The second case was that of a lady whose menses had been suppressed for a while by the influence of violent emotion, and which afterwards re-appeared with a hæmorrhagic character, alarming the patient. She was confined to her bed, and the least movement increased the flow of blood. Sulphate of quinine was ordered, as in the previous case, and, the better to test the power of the drug, she was ordered to rise and walk about. The next day the menses had lost their hæmorrhagic character, and on the second day they had ceased entirely. These observations seem to support the theory of Monteverdi and Bouqué that quinine acts as an excitant of the involuntary muscular fibres.

Feuilleton.

SAMUEL JOHNSON AND JOHN HUNTER.

In the month of September, 1748, John Hunter first came up to London from his home at Long Calderwood, near Glasgow, to begin the study of anatomy under his brother William. The latter had been established in London about eight years, had met with success, and was then lecturer on Anatomy and Surgery, having succeeded Wm. Sharpe in 1745. John went to reside with William in Jermyn St., and was employed in preparing the anatomical matter to illustrate his brother's lectures. He made rapid progress and became very skilful in dissection, but in other respects we find that he was very much like other young men of his age and occupation. He was eager to take his pleasure after his labor; he was, it would seem, not choice in his associates, liked the theatre not anatomical, and preferred the shilling gallery, especially on first performance nights. He was, I fear, engaged in even more doubtful occupations and amusements, such as robbing graveyards and frequenting low taverns. The child of the old age of his parents, the pet of a fond, indulgent, widowed mother, having little taste for books, he seems to have received no systematic instruction and very imperfect elementary training while at home, but was allowed to roam as he pleased about the village, so that he brought to London little besides his rustic health and vigorous constitution, his indomitable will, his violent temper and his big brain thatched with carroty red hair.

Now in the month of January following, there began to be much talk at his brother's table, where John met some very good company, of a new play to be brought out at Drury Lane Play House, which was then the favorite theatre, Mr. David Garrick, the manager, being the most admired actor of the town and having an excellent company. The play was the tragedy of Irene, a production of one Mr. Samuel Johnson, who had already some reputation as a man of polite learning, having lately published a poem entitled "The Vanity of Human Wishes," and written the lives of Boerhaave and Sydenham, besides other papers for the *Gentleman's Magazine*. He was also the reputed author of the dedication of Dr. James's Medicinal Dictionary. Still though past 40, he was but little known to fame, and this was his first, and we find also his last, effort to attain eminence in dramatic literature. He has confessed that this tragedy cost him a vast deal of thought and labor. Before producing it he had waited a year beyond the nine allotted by Horace. It had been cut and polished and re-written. Several managers had rejected it. His friend Garrick had argued and disputed with him, wishing him to alter it, especially in the closing scene, even after he had accepted it. Garrick said privately that, not only Johnson had not the faculty to produce tragic impressions, but that he had not the sensibility to perceive them. "When Johnson writes tragedy," said Garrick, "declamation roars and passion sleeps; when Shakspeare wrote he dipped his pen in his own heart."

But our purpose is not so much to speak of tragedy as of a certain comedy "not in the bills," which was enacted at Drury Lane Play House in London on the occasion of the first representation of the tragedy of Irene, on the evening of the 6th of February, 1749. As in the author's opinion befitted the occasion, he appeared this evening behind the scenes, and also in the boxes, arrayed in a brilliant crimson waistcoat with richly gilt lappels, and a gold-laced hat, in which guise, as he confesses, he did not feel much at his ease. He was in the green-room long before the hour, anon peeping nervously through the curtain, anon sententiously skylarking with the young ladies with fair bosoms and silk tights, like a sportive elephant with a herd of antelopes, and anon lumbering to and fro, shaking his head and muttering to himself, with contortions of body, as was his wont. In his company was his friend Mr. Boswell, as he tells us; while among the audience were Sir William Young, an eminent politician, who wrote the epilogue to the play; Topham Beauclerc, and old Gilbert Walmsley, of Litchfield, who had formerly mingled in the gay world, and was now come up to town in order to verify his prediction that his young townsman would "turn out a fine tragedy writer;" and very likely Dr. Taylor was present, and other friends of Mr. Johnson, besides a large and critical audience, for a first performance at Drury Lane was an event in the London world, and many fair ladies doubtless sighed approval of the opening lines about the "Soft solicitudes of dress." In one of the finest boxes I can imagine William Cheselden, Surgeon to His Majesty's Royal Hospital at Chelsea, Fellow of the Royal Society, etc. Sixty years old and at the summit of his fame, a friend of Pope, an admirer of poetry and patron of the fine arts.

It would seem that, as usually happens on first nights, the piece was delayed. This aroused the impatience of the audience. Before the curtain rose, there began in the seventh heaven of the gallery a vacarme of shrill whistles, stamping, scraping and cat-calls that put poor Mr. Johnson quite in a tremor. This was uncalled for, since thus far he had done nothing to offend, but it suffices to show his state of mind. When asked afterwards how he felt on that evening, that famous man replied, "like the monument," but he should have admitted that he appeared like the monument in an earthquake.

Perhaps one of the most important actors in the comedy which we wish to describe, was a sturdy, freckled, red-headed youth of 20, with grey eyes, beetling brows, gruff voice and strong Scotch accent, who leaned over the railing of the shilling gallery criticizing the performance in language not choice nor canonical. It was plain to see that he was the leading spirit in the frouzy crowd that surrounded him, made up of greasy weavers' apprentices from Spitalfieds, slatterns out of Holborn, filthy Jews from Field Lane and St. Mary Axe, vagabonds of all sorts, and alas! anatomical students. And who are those fellows with whom our young man and his companions have just been drinking gin at the bar? They are graduates of the old Bailey, who have adopted a new calling, and now appear in flash waistcoats with gold rings and plenty of money. Their names are Crouch and Harnett and Butler, and their profession that of body-snatchers. At the period of which I write, since the Barber-Surgeon alliance was dissolved (that was in '45), no lectures in anatomy could be properly illustrated without the aid of these men, owing to the violence of the common prejudice against human dissections. Their existence as a class was a secret known to but few persons outside of the anatomical schools. Occasionally there were amateur snatchers among the medical students. But the work was esteemed extraordinarily hazardous, for all the churchyards in London were patrolled at night by armed men and every means taken to prevent their being robbed. If detected, no mercy could be hoped for. A poor sexton, merely on suspicion, came near being buried alive in the grave which he was supposed to have rifled. Transportation for life was the lightest punishment. These, then, were the men in glittering dinner-plates and scarlet waistcoats, with whom we find this young fellow consorting in the shilling gallery of Drury Lane, bantering jests and talking flash language while the classic verse of Samuel Johnson is sounding from the lips of David Garrick. And this young fellow was John Hunter.

We may be sure that these worthies in the gallery did not find the play much to their taste, and I daresay young Jack Hunter wished himself away, and liberally cursed the portentous length and learned dulness of the piece. Labored elegance of trope and metaphor, classic language, classic allusion, classic form, he and his chums cared not a boddle for the whole of it. But at last they were repaid. For when the climax of the piece came, lo! the heroine was to be strangled by the bowstring. Untried and startling effect! Cries of "Murder! — Murder!! — Watch! — Watch!!" with groans and shrieks, choking and gagging resounded through the house, while Jack Hunter's north-country voice sent a roar from the upper regions which drove poor Mr. Johnson to the extremity of terror. If the trembling author looked up, as most probably he did, to the place from whence issued these fearful ululations, he saw, and must have been astonished at the sight, the determined vehemence of passion which John Hunter displayed, and marked the latter's curly red hair, undershot jaw, and strong Scotch features leading on the mob. Mr. Johnson had come dressed and prepared to rise and bow graciously from the boxes in answer to the plaudits of the audience on the success of his piece. Now he looked around for a place to hide his terrified and mortified head. If my story be an authentic narrative, as I am assured it is, we may safely say that Hunter on that occasion accomplished for Belles Lettres what he oftener did afterwards for Science, namely, what no one else had done or could do. Critics and managers had in vain besought Mr. Johnson to alter his tragedy, especially the death scene. But Hunter sent a thrill through Mr. Samuel Johnson, such as Garrick could not compel in the bosom of that great dictionarian, and on the succeeding night Mistress Pritchard, playing the heroine, was no more bowstrung before the astonished body-snatchers, but was, to use the phrase of Mr. Dennis, quietly "worked off" behind the scenes.

What more characteristic than this hearty expression of contempt of young Hunter for the work of Dr. Johnson! Johnson a man of books, Hunter who hated them; Johnson a logomachist, suggesting a progression of pompous polysyllables, Hunter whose habitual language was far from choice; Johnson compiling a dictionary, Hunter crying out in his lecture, "Of all things on the face of the earth, definitions are the most cursed."

"Unhappy whom to beds of pain,
Arthritic tyranny consigns,"

writes Johnson; "I'm laid up with a d—d gout," cries Hunter, with thoughts about the nature of Arthritis, such as Dr. Johnson's muse, in her tedious and instrumental labors, never gave birth to.

I own I find a certain pleasure in contemplating this Hogarthian picture of Mr. Johnson in the crowded theatre, smirking in the boxes and trying to appear at his ease in his unaccustomed finery, and in his new rôle of dramatic author, and Jack Hunter among the *profanum vulgus* of the gallery, criticizing the play with his uncompromising plainness of speech and clear Scotch sagacity. I see Mr. Johnson's complacent smile change into confusion and fright. I pity that strumous dogmatist. On the stage poor Mrs. Pritchard, with the bowstring around her neck, is striving in vain to utter her last words, while her feigned looks of horror gradually give way to a real terror; the black slaves, forgetful of their blood thirstiness, turn their frightened eyes now upon the gallery and now upon one another, and the whole party presently, quite unmindful of Mr. Johnson's tragedy, fly from the stage and take refuge behind the scenes in comical dismay. John Hunter alone is master of the situation.

I cannot find that Dr. Johnson and Dr. Hunter were ever acquainted. Dr. Johnson's old master, who used to flog him and call him a stupid-head, was named Hunter. It could not have been a name harmonious or pleasing in the ear of Samuel Johnson.

Once in after life I see John Hunter confronting Dr. Johnson. Mrs. Hunter, who was a fine woman and fond of fashion, received much company at her house and especially cultivated the society of distinguished literary people. It is not strange, therefore, that Dr. Johnson was among her guests on the occasion of a certain soirée, which she gave without consulting her husband, or even inviting him to be present. In the middle of the evening Hunter came home from his professional calls, fully determined to go to work on some experiments which he had in hand, and at such times he allowed nothing to stand in his way. He pushed into the drawing-room, looked around him in disgust, and cried out, "Mrs. Hunter, what's all this kick-up about? I did 'nt invite these people, and I have come here to study, so I wish the present company to retire." I can imagine Dr. Johnson, as he got himself out of the house, saying—not to Boswell, for he was a Scotchman — "Sir, a man can never arise to eminence in the medical profession, nor indeed in any other, who treats a respectable company in such an unceremonious fashion. But Mr. Hunter is a Scotchman, and what can you expect of a people so deficient in civility." A. Z.

The Treatment of Ulcers.—A report on the treatment of ulcers in the various London hospitals is contained in the *British Medical Journal* for June 15th. From all, favorable reports of the employment of skin grafting are elicited.

Mr. George Lawson, of the Middlesex Hospital, regards constitutional treatment as a powerful aid in the treatment of ulcers. Many of the hospital patients have constitutions sadly debilitated by poverty and intemperance. The patient must be made to keep his leg in a horizontal position, and the ulcer be kept clean and covered by strips of lint wet with with water or some mild stimulating lotion. Syphilitic ulcers, of course, require specific treatment. The mineral acids, with bark and opium, seem to be the most useful for large and painful ulcers. Opium, properly administered, allays pain, produces sleep, and often, in a very short time, changes the character of the sore. In the large chronic ulcers, with a thickened, brawny condition, skin-grafting is a most useful adjunct.

Mr. Andrew Clark states that under carbolic acid lotion, one part to sixty, with ammonia and bark internally, the ulcers assume a healthy appearance. When healing, a lotion of nitrate of silver, two grains to the ounce, assists this process. Stimulating ointments, as resinous ointments, appear to cause pain, and other ointments, as zinc, appear to interfere with cleanlines.

At King's College Hospital Mr. Wood thinks that by skin grafting the time for the healing of a chronic ulcer is reduced one half. He has thought that in one or two cases the resultant cicatrix has been somewhat less durable than when the wound has been healed by other means.

Mr. Francis Mason, of St. John's Hospital, speaks of 1st, eczematous or inflamed, 2d, œdematous, 3d, serpiginous, ulcers. For the first class he prescribes a saline purgative combined with a little colchicum. After its action he gives an anodyne and applies soothing applications, opiate lotions, a light poultice or water dressing. He discards bandages.

For the œdematous ulcers a bandage often does good, and often it is well to touch them with nitrate of silver. Astringent lotions of sulphate of zinc or the zinc ointment may afterwards be applied.

In the serpiginous ulcer the nitrate of silver may be freely applied, especially under the overhanging edges. Small pieces of lint, either dry or dipped in the lotio nigra, with subsequently astringent lotions, may be packed into the wounds. Give also iodide of potassium internally and blue pill every other night.

At Westminster Hospital Mr. Holt endeavors to procure a moderately healthy granulating surface, by proper position, suitable dressings, &c., taking care to remove with the knife all hypertrophied cuticle. When this has been done, if the ulcer is not very large, he invariably hermetically seals the wound as follows: — "A square piece of soap strapping, two inches larger than the outer circumference of the ulcer, having a hole made of the exact shape of the ulcer, is applied to the leg. Upon the strapping good collodion is applied with a brush, and over ulcer and strapping one square piece of oiled silk is laid. This at once seals the ulcer; and in order to prevent the edges of the oiled silk from rubbing up, he further fastens them down with small strips of plaster." If the discharge is profuse the sealing must be repeated in a couple of days.

Mercury.—In the *British Medical Journal* (July 27, 1872) we find the following curious statement as to the early use of mercury as a specific in the treatment of syphilis:—

"Some give Paracelsus the credit of being the first to use mercury in syphilis. This seems to be a mistake. According to Boerhaave, Berengarius was the discoverer of its merits; and the following is from Douglas's *Bibliographia Anatomica*, Lyons, 1734:—'Jacobus Berengarius Carpensis, ita dictus a Carpi civitate in Italia . . . . inunctionis ex hydrargyro in curâ luis veneræ primus fuit inventor, illoque solo quæstu mirè opulentus redditus est.'"

Post hoc, propter.—If one uses the weed that accounts for longevity; if he does not use it, that accounts for it too.

Medical Miscellany.

Recruits.—About two hundred men offer monthly at the office in New York for artillery and infantry, of whom seventy-five per cent. are rejected. The Germans preponderate in those who pass; the Irish come next, and then the natives of the United States. The mounted service is more successful in obtaining men, though the pay is the same.

Coup de Soleil.—A fatal case of sunstroke occurred lately at St. George's Hospital, London. One of the boys belonging to the *Goliah* training ship was struck down just after being reviewed by the Prince of Wales. He was at once carried to the Hospital, but died in a few hours, in spite of treatment. Before death, the temperature exceeded 109°. At the autopsy, nothing was found but very fluid blood and a somewhat congested brain; the lungs and other organs were healthy.

Removal of Plaster of Paris Bandages.—This may be readily accomplished by wetting them with a strong solution of common salt. It causes the plaster to crumble, so that the bandage can be readily cut. It is also useful to clean the hands and nails of the operator.

Mortality of the Siege of Paris.—During the twenty-eight weeks of the siege of Paris, according to Dr. Henry Sueur, the excess of deaths over the mean mortality of the four preceding years and the following year for the same eight weeks, was 52,303. The mortality was least among men between 40 and 60. The diseases chiefly contributing to this great mortality were six—smallpox, bronchitis, pneumonia, typhoid fever, diarrhœa and dysentery.

Several cases of cholera have recently occurred among the British shipping at Cronstadt.

A considerable sensation has been caused in France recently by the communication of M. Decaisne to the Academy of Medicine on the depopulation of France, indicated by its present vital statistics. Comparing it with Prussia, he states that where there 100 marriages produce 460 children, in France they give only 300. The percentage of births to the population in Prussia is 3·98; in France only 2·55. The annual excess of births over deaths in Prussia is 13,300 per million; in France, 2,400. As to the future, the French population would require 170 years to double itself; that of Prussia 42; that of Great Britain 52; that of Russia 60.

The Air of Houses should not contain carbonic acid enough to give a precipitate when a ten-ounce bottleful is shaken with half an ounce of clear lime-water.—Dr. R. Angus Smith.

The Value of Cundurango is thus stated by one of the daily papers:—

"Cundurango yields to cancer, and Mrs. Matthews, Vice President Colfax's mother, in whose case so much was claimed and expected for the new drug, died on Sunday."

The College of Professors in the University of Vienna have determined on adding a third teacher of clinical midwifery to the two already existing, and have appointed to the position thus created Dr. Gustav Braun, Professor of Midwifery in the Joseph's Academy.

The King of Sweden has conferred the knighthood of the order of Wasa on Dr. Lewis A. Sayre, of New York.

The sixteenth annual meeting of Hungarian Naturalists and Physicians will take place at Mehadia in September. The meeting will continue from the 13th to the 21st.

Books Received.—A Manual of Chemical Physiology. By J. L. W. Thudichum, M.D. New York: Wm. Wood & Co. 1872. (From the Publishers.)—On Food, its Varieties, Chemical Composition, &c. By H. Letheby, M.B., Ph.D., &c. Second Edition. New York: Wm. Wood & Co. (From the Publishers.)—Healthy Houses: a Handbook of Drainage, Ventilation, Warming and kindred Subjects. By William Eassie, C.E., F.L.S., &c. New York: D. Appleton & Co. 1872.

Deaths in thirteen Cities and Towns of Massachusetts, for the week ending August 10, 1872.

Cities and Towns.	*No. of Deaths.*
Boston	191
Worcester	27
Lowell	31
Chelsea	12
Cambridge	33
Salem	17
Lawrence	27
Springfield	13
Lynn	19
Fitchburg	8
Newburyport	8
Haverhill	13
Holyoke	7
	453

Prevalent Diseases.	
Cholera Infantum	136
Consumption	46
Dysentery & Diarrhœa	21
Typhoid Fever	15
Pneumonia	11
Cholera Morbus	7
Scarlet Fever	7

Four deaths from smallpox occurred in Boston. Of the deaths from intestinal disorders, 81 occurred in Boston, 13 in Lynn, 12 in Cambridge, 10 in Lawrence, 9 in Worcester, and 7 in Haverhill.

George Derby, M.D.,
Secretary of State Board of Health.

Deaths in Boston for the week ending Saturday, August 17, 190. Males, 114; females, 76. Accident, 5—apoplexy, 5—aneurism of aorta, 1—inflammation of the bowels, 3—disease of the bowels, 1—congestion of the brain, 5—disease of the brain, 5—disease of the bladder, 2—bronchitis, 3—burned, 1—cancer, 1—cholera infantum, 43—cholera morbus, 1—consumption, 14—convulsions, 5—debility, 4—diarrhœa, 4—dropsy, 2—dropsy of brain, 2—dysentery, 3—exhaustion, 1—scarlet fever, 1—typhoid fever, 6—bilious fever, 2—gastritis, 1—disease of heart, 6—disease of hip, 1—intemperance, 2—disease of the kidneys, 2—inflammation of knee-joint, 1—disease of the liver, 2—congestion of the lungs, 1—inflammation of the lungs, 6—marasmus, 11—old age, 4—paralysis, 1—premature birth, 2—puerperal disease, 1—peritonitis, 2—pyæmia, 1—rheumatism, 2—scalded, 2—suicide, 1—smallpox, 7—sunstroke, 3—teething, 1—whooping cough, 2—unknown, 7.

Under 5 years of age, 99—between 5 and 20 years, 10—between 20 and 40 years, 37—between 40 and 60 years, 27—above 60 years, 16. Born in the United States, 135—Ireland, 39—other places, 16.

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AMENORRHŒA;

ITS CAUSES AND TREATMENT; ESPECIALLY BY ELECTRICITY.

By William H. Baker, M.D. Harv.

We have read with interest the suggestions made and the cases reported in this Journal relative to our subject; and these have so impressed us with its importance as to lead to a new investigation of it, both by experiment and by a review of the most recent and the best authorities. The results of this study are given in this article. We will briefly consider the causes of this affection, and the various methods of treating it, particularly that by electricity; and we will endeavor to show in what class of cases this agent should be employed, what variety of it should be used, and what is the best method of its application.

The term amenorrhœa etymologically denotes "not to flow monthly"; or, in other words, the morbid suspension or nonappearance of the menses.

To understand this abnormal state, we must consider the normal condition which it interrupts. In obedience to a natural law, which we cannot fully comprehend, one or more ovules mature and burst from either or both ovaries, passing into the uterus through the Fallopian tubes, once in about twenty-eight days during the period of fecundity. At this time, under the influence of the ganglionic system of nerves connecting the ovaries and uterus, congestion is produced in the latter as it already exists in the former; the uterus becomes thereby somewhat engorged, and consequently descends toward the floor of the pelvis. Its mucous membrane being swollen and the vessels thereof enlarged, the walls of the capillaries burst under the excessive congestion, and hæmorrhage ensues.

The menstrual flux was not formerly considered a true hæmorrhage, but an effort of nature to expel injurious substances, from the accumulation and retention of which very deleterious consequences were feared. But it is generally received by physiologists of our time, and proved by microscopic examination and chemical analysis, to be a veritable hæmorrhage; and therefore the former apprehensions of danger from the postponement of the menses beyond the age of puberty, or the time of their periodic return after it, are shown to be groundless.

Amenorrhœa, as previously indicated, is an anomaly of this function, an abnormal state of the organs concerned in menstruation. In the works of most writers, prior to a period comparatively recent, it was treated as a disease, and considerable space devoted to it as such, and to other diseases which were thought to follow and to be produced by it, the effect being substituted for the cause. But the riper experience and the more advanced scientific knowledge of to day attach to it only a symptomatic importance, and treat it as to the disease that produces it rather than the effect produced by it, since it is itself a result of an abnormal condition of these organs, of the blood, or of the nervous system—all of which should be in a state of perfect integrity.

It is more common in the higher than in the lower classes of society, on account of the frequent retirement of the former from those activities and habits of life which contribute to the health and vigor of the body.

Causes.—One of the best classifications of these, for precision and completeness, is that given in the admirable work of Prof. T. G. Thomas. To this we have made one or two additions.

"*Abnormal states of the organs of generation:* as the absence of the uterus or ovaries, rudimentary condition of either or both of these, occlusion of the uterus or vagina, metritis or endometritis, superinvolution, pelvic peritonitis, atrophy of both ovaries," fibrous tumors of the uterus and cystic degeneration of both ovaries.

"*Abnormal states of the blood:* as in chlorosis, plethora, phthisis, cirrhosis and Bright's disease."

"*Abnormal state of the ganglionic nervous system.*"—This occurs in "atony from nervous depression, from indolence, luxury, deficiency of fresh air, want of exercise and constitutional disease, as phthisis," and the like.

The most common causes of amenorrhœa are chlorosis or anæmia, and phthisis, which does not prevent the establishment of the menses, because the tuberculous diathesis is not usually developed at so early an age. To these may be added atony of the nervous system from the above-named causes, rudimentary condition of the uterus or ovaries, occlusion of the uterus or vagina, superinvolution, prolonged anxiety of mind, severe hæmorrhages from other parts of the body, or long-continued discharges from the various mucous surfaces, or in fact anything which interferes with the proper nutrition of the body.

These causes are more or less permanent and internal; others are occasional and external in their primary source; but their results in turn become the causes of this affection—*e. g.* exposure to cold or wet, sudden fear, excitement and severe sickness. But these are only of secondary importance; for instance, the influence of cold or wet at the period of menstruation may cause a sudden suppression of the flux and produce an acute metritis, which may become chronic, resulting in a permanent amenorrhœa.

Where the causes of this phenomenon are so various and recondite, great skill and thoroughness of examination are indispensable, in order to accurately determine the particular condition which produces the abnormal state, and therefore to distinguish the mode of treatment.

Differential Diagnosis.—Before deciding upon the treatment, as the author above referred to suggests, the practitioner must distinguish this affection from *pregnancy*, from the *climacteric period*, and from *delayed menstruation*.

If great caution is not exercised in distinguishing this affection from pregnancy, a mode of treatment may be adopted, as we have before intimated, which may be both injurious to the subject and destructive to the fœtus.

Treatment.—This, as previously stated, must vary with the causes producing the affection. There can, of course, be no treatment in cases of the *absence of both ovaries*, a condition extremely rare.

The *absence of the uterus* is more easily diagnosticated, but is equally beyond remedy, although the symptoms which are usually alleviated by the hæmorrhage from this organ, if urgent, may be periodically relieved by venesection. Like the former, this condition is extremely rare.

In cases where a *rudimentary* or *atrophied condition of the uterus or ovaries*, or where *superinvolution of the uterus*, are the cause of this state, electricity, of which we shall shortly speak, affords the most efficient method of treatment.

When *occlusion of the cervix or of the vagina* exists, a surgical operation is necessary. A case of the first-named class was treated by the author in December, 1871. A brief of the case then made is as follows: K. C. was a native of Ireland, aged 30 years, having been married six months, and until within five months of marriage always strong and well, when, without any known cause, the menses ceased. At each succeeding monthly period the patient had all the usual symptoms of menstruation, except the hæmorrhage. Two days before her marriage, being the menstrual period, she had very severe pain, with the discharge of only two or three drops of blood. But from that period to the time when first seen, there was no return of the catamenia. A digital examination of the vagina proved it to be normal; examined bimanually, the uterus was found not enlarged, perfectly free and movable, slightly retroflexed; cervix normal as to position, size and consistency; but no os could be felt. By speculum, no os was to be discovered; but after several minutes' delay a single drop of secretion appeared at the centre of the cervix, showing that there was not a *total* occlusion of the os. After considerable manipulation, a probe of the smallest size was passed, when the cervical canal was found to be unobstructed, and the cavity of the uterus not enlarged. This was followed by the use of probes of larger size, until an orifice was obtained sufficient for the admission of an exceedingly small sea-tangle tent. The next day, this being removed, the orifice was found so much enlarged as to admit a tent of tolerably large size, which was left in position for twenty-four hours; and, when removed, the first phalanx of the finger could be readily introduced through the os. The patient was not seen again for five months, when she reported herself entirely relieved, the menses having appeared ten days after the last operation, and been regular from that date.

In this case what became of the menstrual flux, which the symptoms warrant us to believe occurred each month? That no such discharge appeared externally is evident; and yet the non-enlargement of the uterus and the subsequent operation proved that there was no blood pent up within the cavity of this organ. Can any one reasonably doubt that this blood, which may have been less than usual in amount, was removed by the absorbents, so active in all parts of the body?

In cases more grave than the above, when the cervical canal is *absolutely* closed, resort must be had to the knife.

In *occlusion of the vagina*, occasioned generally by an imperforate hymen or congenital malformation, there is great danger of the death of the patient from peritonitis or pyæmia, in consequence of the operation; the blood which is retained within the cavities of the Fallopian tubes, the uterus and vagina, and which, being suddenly evacuated from the two latter, is forced by the contraction of the uterus from the tubes into the peritoneal cavity, thereby producing inflammation. There is also danger lest immediately after the evacuation of the blood from the uterus, air should enter that organ and cause a decomposition of the blood remaining there, which, being absorbed, produces pyæmia. As a precautionary measure, the blood should be withdrawn in small quantities and at considerable intervals, care being taken to avoid the entrance of air.

When *endometritis, peritonitis, fibrous tumors of the uterus, or cystic degeneration of both ovaries* are the causes of amenorrhœa, they, and not it, should be treated.

When this affection is dependent upon *chlorosis* or *anæmia*, these should be first treated by generous diet, exercise in the open air, and the various preparations of iron; and when by these means the system is brought up to its normal standard, if menstruation does not take place spontaneously, it may be promoted by the application to the uterus of a local stimulus, as of electricity.

On the contrary, where amenorrhœa results from *plethora*, a restricted diet, activity, free air, and even venesection may be found beneficial. Nature itself suggests the propriety of this latter course, since when the menses are interrupted or very much diminished for any considerable period, hæmorrhage often takes place from some other part of the body—as from the lungs, stomach, intestinal canal, mucous membrane of the nose or mouth, from the skin, or whatever part may have been most reduced. The greater impulse of the heart and the quickened circulation which always exist at such times in sympathy with the congestion of the organs of generation, increase the pressure against the walls of the vessels and rupture them at the point of their greatest weakness. In these cases of vicarious menstruation the hæmorrhage is commonly more copious than the catamenial flow, and it is apt to induce an anæmic condition requiring the administration of the tonics before mentioned.

If *phthisis, cirrhosis* or *Bright's disease* be the cause of amenorrhœa, these affections should receive our treatment, for under such circumstances the normal hæmorrhage from the uterus would only be a source of additional weakness.

When this condition results from an *atonic state of the nerves*, the use of nervous tonics, as nux vomica, strychnia and similar drugs, is indicated, together with exercise in the open air, liberal diet and the general application of electricity, to be spoken of hereafter. When these have sufficiently elevated the tone of the system, emmenagogues may be useful, foremost among which is the local application of electricity. Other local stimuli which may be advantageously used are the passage of the sound, the introduction of the tent, cupping of the cervix, stimulating enemata and hot baths. These means not only act upon the uterus, but often promote ovulation.

Treatment by Electricity.—In this branch of our subject it will aid us to classify the methods for the application of this agent, and its results, according to the mode of its generation and use, into *statical, galvanic* and *Faradic.*

Statical or *frictional electricity* has been employed in medical science for more than a hundred years. But early in the present century it began to be supplanted by galvanism, and still later by electro-magnetism, on account of the inconvenient size of the electrical machine, the influence of the weather upon its action, the difficulty of regulating the quantity required and of applying it only at the precise point where it was needed. For these reasons its use is now generally discontinued.

Galvanism dates from near the close of the last century, and in the very beginning of the present the discovery of the Voltaic pile introduced it to medical science. But this apparatus was soon superseded by the galvanic battery, which is now in general use.

The continuous current is specially applicable to cases in which there is a want of proper development of the uterus or ovaries, or in which there has been an excessive structural change of the same, as in atrophy of both or superinvolution of the former, and perhaps in some other cases, which the practitioner will readily recognize.

A case is here introduced which came under the personal observation of the writer, and which shows how this current may succeed where other modes of its application fail.

A. D. was aged 20 years, single, domestic, and a native of Ireland. She had been in a chlorotic condition; but this state had been so far corrected in August, 1871, that it was thought advisable to apply electricity as a local stimulant. The menstrual flow had never appeared but once, and then about a year previously; but it continued only one day. Upon bimanual examination, nothing abnormal was found. The Faradic current was applied externally—one electrode to the sacrum, the other to the pubes for five minutes on two successive days, with no marked effect. Five days afterwards, the galvanic current, with six cells of Stöhrer's zinc and carbon battery, was applied externally to the same points for five minutes. This produced, on the same day, pains through the pelvis, with slight hæmorrhage from the genitals. The application was repeated the next day, and the flow became natural. Unfortunately, after this the patient was lost sight of, and therefore the permanent result could not be ascertained.

In this case, why did the continuous current succeed where the interrupted failed? Was it not due to catalysis—that is, to the action of this agent upon the bloodvessels, dilating them, quickening the circulation, and thereby bringing about the flow?

Faradization has but a slight effect upon the sympathetic nerves, which supply the ovaries. Galvanism, however, has a powerful effect upon them; and this, as we have just intimated, is probably the reason why we failed with the former and succeeded with the latter.

But in all cases where galvanism is employed, caution must be exercised: *first*, not to continue the application too long, and thereby produce exhaustion and collapse; the proper length of time is from three to five minutes; *Second*, lest too great a persistence in a uniform direction of the fluid should destroy the tissues at the point of application by its caustic action, a result which can be realized only by a very strong current, and which may be avoided by a reversion of it once in from thirty to sixty seconds; *Third*, for reasons just given, too strong a current should not be used. The proper quantity may be ascertained by the galvanometer.

Proper Mode of Application.—In the use of the galvanic battery, one electrode should be applied to the lower portion of the spine, whence proceeds the nervous supply of the parts requiring treatment; the other, either externally to the abdomen in the region of the uterus or ovaries; or internally, directly to the cervix or to the interior of the uterus.

A very convenient instrument for applying the continuous current is the galvanic pessary of Sir J. Y. Simpson, modified by Dr. Noeggerath, and still further by Prof. T. G. Thomas. If the use of this pessary causes excessive irritation, the instrument must be temporarily withdrawn and the current from the battery substituted.

It is not yet decided whether the beneficial results of this pessary are to be attributed to the mechanical effect of the metals or to the chemical action of the current—a question which, it is to be hoped, progressive science may ultimately decide.

Electro-magnetism was first used in 1832 by Faraday, whose name it now generally bears. It was soon after applied to medical science, and re-animated the whole department of electro-therapeutics on account of its special adaptation as a remedy for certain phases of disease, because from the greater tension and diminished volume of its current, it has been found specially applicable to cases where its effects are desired upon the muscles and vaso-motor nerves.

The cases, relative to our subject, in which Faradization is of the greatest benefit, are those of acute suppression of the menses, resulting from undue exposure to cold or wet, from strong mental emotion, and in other cases requiring a local stimulant. It is also useful where an atonic state of the nervous system exists. In many of these cases it should be administered in connection with some other therapeutic agent, as the various tonics, for example.

Proper Mode of Application.—Many writers give the following rule:—One electrode should be applied to the lumbar region of the spine, the other to the hypogastrium. This may be true as a general law, but it requires more minute specification. This rule is correct where the electricity is from the secondary inductive coil, because in this case the course of the current is changed at each interruption; and it makes no difference in respect to the uterus which electrode is applied to either point. But this rule does not apply where the electricity is from the primary inductive coil, because here the course of the current is not changed; and experiment proves that the positive pole should be applied to the lumbar and the negative to the hypogastric regions, in order that the fluid may pass in the same direction as the nerve fibres.

It is advisable first to try this external application, on account of the facility of its use, and for the sake of sparing the delicate feelings of the patient; and it will commonly be found sufficient. But if this is not effectual, resort must be had to its application to the cervix or even to the fundus of the uterus. The advantage of the internal application to the cervix over the external, results from the absence, in that part, of nerves of sensation, and from the consequent opportunity of using a stronger current and applying it to the desired point.

We have an appropriate illustration in the case of M. B., a seamstress, married, who entered the Boston City Hospital, and became the patient of Dr. J. G. Blake, March 25th, 1871. The patient had suffered from the symptoms of anæmia since the birth of her child, two years previously. Upon examination, the uterus was found retroverted, but not specially enlarged, and perfectly free and movable. She was immediately put on tonic treatment. Two weeks after entrance, catamenia appeared, though very slight; none subsequently for three months, although for some days previous to her expectation of it, the usual emmenagogues, and external stimulants to the parts were used. During this third month she had so far recovered from the anæmic state that between the periods when the menstrual flow should have appeared she was comparatively well. On the 5th of July, when the catamenia was expected, until the 8th, Faradization of the fundus of the uterus was practised by the author at the request of the attending physician. A current from the secondary inductive coil, sufficiently strong to produce a pricking sensation in the hand of the operator, was used. The positive electrode was applied to the lumbar region and the negative to the fundus of the uterus.

If any inquire why we did not, in this case, first apply electro-magnetism externally, our answer is found in the advanced state of the catamenial period and in the severity of the symptoms of the patient. After the second application for five minutes on two successive days, the menstrual flow appeared, and in a few days the patient was discharged from the hospital, "well." She was seen again after nine months, and reported perfect regularity of the menses from the last application.

Brief of other Cases.—The value of these would, in many instances, be greatly enhanced if the causes could have been more fully stated.

We are indebted to Dr. Francis Minot, of this city, for the three following cases in his own practice.

March, 1871. Mademoiselle M. had been regular until eleven months ago, when catamenia ceased without known cause. On the 13th, 14th and 15th of the month, electricity was applied through both hands and from one hand to the opposite foot for five minutes. On the 16th inst., patient reported that the catamenia appeared on the previous evening, in the most natural manner, and still continued.

June, 1867. A. B. had perfectly normal menstruation; none subsequently for sixteen weeks; cause of cessation unknown. On Oct. 2d electricity was applied through both hands, and on the two following days it was applied in a similar manner, and also from each hand to the opposite foot, the current being reversed. On the evening of the latter day the catamenia appeared.

Another case also occurred without known cause. The last menstruation was perfectly normal in time and amount. But here electricity was applied in a similar manner as in the previous cases, yet without any effect.

Dr. Golding Bird reports twenty-four cases treated by statical electricity, the current being passed through the pelvis from the sacrum to the pubes, at intervals of from two to three days. The result was cure in twenty cases, the remaining four being chlorotic.

Drs. Beard and Rockwell report fourteen cases with these results:—eight cured; one approximately recovered; and five not benefited.

Dr. Althaus in his remarks on amenorrhœa reports one case in his own practice, treated by Faradization, which resulted favorably. He also quotes from the *New York Journal of Medicine* of 1844 a remarkable case in the practice of Dr. Le Conte, of Georgia, in which a negress, 70 years of age, in whom the menses had been absent more than twenty years, was treated by thunder and lightning from the Almighty's battery, one charge from which brought on the menstrual flow, which continued regularly for the two succeeding years.

Thus, each form of electricity has its specific action and produces its specific results; and, therefore, the cause of the affection should be sought and well understood in order to apply the agent appropriately.

The author would gratefully acknowledge his obligations to Dr. D. F. Lincoln and others for their valuable suggestions in the preparation of this article.

Boston, Mass., July 1, 1872.

MEDICATION IN DISEASE.

Read at a meeting of the Norfolk (Mass.) District Medical Society,* July 10th, 1872.

By JOHN P. MAYNARD, M.D. Harv.

UNANIMITY of opinion cannot be expected regarding a subject depending on so many and varied contingencies as medication in disease.

Less diversity would exist, however, if we could be sure of a basis on which to rest our premises, and from which to draw our conclusions. Then would the faithful seeker after medical truth more readily avoid the manifold error of mistaking sequences for consequences, and chance coincidences for actual causations.

There is, perhaps, no subject in which there are inherently more difficulties and greater obstacles in fully appreciating and properly determining the absolute relation of cause and effect than in the one now under discussion. Prominent among these obstacles is the too common tendency to hasty generalization and premature conclusions from limited facts, with the propensity to promulgate hypotheses or theories built on insufficient data. Nothing can be a greater hindrance to the progress of true medical science; for a theory once started, perhaps fortuitously, corroborated by casual incidents and plausible sophistry—while it wins the confidence and obtains the support of the illogical physician who accepts it without examination—often entails a tedious investigation upon the more philosophical to demonstrate its absurdity or to prove its emptiness.

Besides, to these obstacles to obtaining a true estimate of the value of medication in disease, comes the problem, all important to the patient as well as to the physician, but heretofore seldom if ever propounded, and now too often ignored—the problem involved in the question, what would be the natural course of the disease uninterfered with by medication. In what way are we to attain to this knowledge, which is the only true basis on which to found a correct opinion of the value or necessity of medication, is not so easily answered. Still, be the opportunities few or many for so doing, it behooves us all to seek the solution whenever such opportunities occur. Not until we have acquired a knowledge of the natural history of diseases can we use with perfect confidence remedial agents which have been and still are esteemed of value by ourselves and others whom we have considered close observers and rigid scrutinizers of facts. Not until then shall we be saved also from much of the trash which now too often appears in medical journals at home and abroad.

Some time ago an article was published in *Braithwaite's Retrospect* by an English physician who, with apparent honesty, appeared to have deluded himself into the belief that by giving large doses of the tincture of digitalis he cured delirium tremens. What foundation had he for such a conclusion? Why, he was called to a patient who had been laboring under the disease between two and three days, after ordinary narcotics had in the mean time been given without the desired effect; and, wonderful to relate, twelve hours after the dose of digitalis, the patient went to sleep, and awoke cured!

From time to time, other physicians have testified to the same beneficial effects of this and other similar medicines, when given near the close of the third day of the disease, apparently not aware that delirium tremens will generally go through its natural course without medication in about three days. I think there is not a member of this Society who is not familiar with the observations of the late Dr. John Ware on the natural course and length of delirium tremens.

Called to attend a severe case of disease, with threatening symptoms and unfavorable prognosis, you treat the patient on the most recent approved plan; you give the last, most certain remedy, and the patient recovers; you congratulate yourself that you gave the very medication necessary. Soon, another case of the same disease occurs, with the same symptoms, but in less severity, and, to your disappointment, the former successful remedy fails, and the patient succumbs. In such instances how natural to infer that the medication was inert, without once surmising that it was equally so in the first.

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* It is customary in this District Society to propose questions for discussion, and to appoint members (in alphabetical order) to open the discussion by short written papers. Hence this article.

Among those diseases of which we know something of the natural course may be cited pneumonia. Medication will not prevent crepitus advancing, hepatization developing, or crepitus recurring. Our knowledge of the natural progress, and generally favorable termination of this disease during the second week, has led to better medication in its treatment—the patient no longer being doomed to antimony in doses *ad nauseam*, "heroically" administered and more heroically endured.

So, too, of typhoid fever, our New England scourge; the natural course of this disease has been studied more thoroughly perhaps than any other. It had long been known that this disease generally reached its crisis by the twenty-first day, provided there had been blistering of the head for concomitant delirium, and purging by calomel one day to be followed by castor oil the next! Fortunate the patient who survived both disease and treatment, for *post-mortems* too plainly revealed that Peyer's patches and other lesions would not be healed by any such medication. Better the French ptisan and odorous mint, supplemented with plenty of milk, beef juice and the like.

And here I am reminded of an instance of the eye seeing what the mind looks for—a very common illusion. About twenty-five years ago a well-known physician published an article on the treatment of typhoid fever, in which he stated that, if he saw the case early enough, he could always "break up" the disease by powerful purgative doses. It was a sweeping statement, but it was the premeditated public statement of a practitioner of large experience, and whose honesty of opinion could hardly be questioned. A few months only after reading the article, I happened to be at the hospital when a patient was brought in, not quite moribund, but in the last stages of typhoid fever. With some effort she could reply to the queries, "How long have you been sick?" "About three weeks." "Did you have a physician?" "Oh, yes." "What physician?" "Dr. ——." "Indeed! how early in the fever did he see you?" "As soon as I was taken sick." I have been these many years trying to reconcile the physician's published theory with the patient's unpublished fact.

In rheumatism, who among us, in the present state of our knowledge, would rely exclusively on any known special treatment, notwithstanding the lauded efficacy of lime and other agents, alkaline or acid. We cannot admit that the statistics brought forward appear to be of much value as yet, especially when compared with those of some of our own hospitals; and we may well inquire in what number of days patients in this disease would get well without any special medication.

In conclusion, I cannot refrain from alluding to medication in cancer. In this disease natural changes and spontaneous alterations in appearance may often beguile an honest observer. Occasionally, an apparent improvement will inspire hope in the patient and friends, and delude for a while even the experienced practitioner. A recognition of this fact would have saved from mortification a young and talented member of our profession, who, recently, on making a trial of a newly vaunted agent at one of these periods of apparent improvement in a case of cancer, was led into the illogical conclusion that it was in consequence of the drug administered, and to prematurely announce his deductions to the public. A few weeks only sufficed to disabuse his own mind, when too late to retract his published statements; for the patient died, notwithstanding the continued use of cundurango.

Enough has now been said to indicate my own views on the subject under discussion. They may be summed in a single sentence—*medication in disease is likely to be of value in proportion to our knowledge of disease without medication.* With such knowledge we can better judge *when*, as well as *what*, medication blesseth him who *receives* more than him who gives.

Dedham, July, 1872.

Post Partum Exploits.—At a recent meeting of the Obstetrical Society of Edinburgh, Dr. Keiller observed that he had recently witnessed several instances of extraordinary exploits of women immediately after confinement without subsequent suffering. He stated that a woman was delivered in the Old Assembly Close, no one being with her at the time. After the placenta came away, she put her room in order, and then, placing the child and the placenta in a basket, she walked, within an hour of her confinement, to the Maternity Hospital, to see if everything was right about her. Dr. Keiller exhibited the fœtus, which was apparently about the seventh month.—*Brit. Med. Jour.*

Reports of Medical Societies.

BOSTON SOCIETY FOR MEDICAL OBSERVATION.

W. L. RICHARDSON, M.D., SECRETARY.

Two Cases of Sudden Loss of Sight. Recovery.—Dr. Folsom reported the cases.

A woman, 44 years of age, had had severe neuralgia, followed by intense pain in both eye-balls and loss of sight. Both eyes were congested, and there was nausea and vomiting. The pupils were natural in size, and the eye-balls were of normal hardness. Quinine and a hot bath were ordered. In five or six hours there was a complete remission of all the symptoms. The nausea and pain entirely disappeared. Some slight congestion of the eyes alone remained. During the next thirty-six hours all these symptoms returned twice. Opiates were administered. After the third attack the symptoms gradually disappeared. The patient was now well.

A woman, 44 years of age, had an abortion at the third month, followed by considerable hæmorrhage and a retained placenta. She became very ill, and the following night was seized with severe pain in the eyes, and, according to the statement of the nurse, with total blindness. The next morning, when Dr. Folsom saw her, she complained of some neuralgia along the course of the occipital nerve on one side, and also of an intense pain in the right shoulder. She was also suffering from more or less nausea. She was unable to see a light held within two feet of the eyes. The next day she was perfectly well.

Dr. Williams said that in puerperal cases a complete loss of sight occurs often from a phlebitis of the eyes, but in these cases it was usually limited to one eye. In glaucoma there was frequently a remission of of the symptoms; but this should not prevent us from being prepared for another attack.

Dr. Fisher said he had under his care a lady, who, after intense neuralgia of the left eye, had almost complete loss of vision in that eye, lasting six months. After a previous attack, says she saw the right half of objects only, for a short time.

Another patient, a lady, after a severe congestive headache, a year ago, *lost vision* in the left half of the left eye, a state of things which still continues, and is due, Dr. Derby thinks, to permanent disablement of part of the optic nerve.

Dr. Wadsworth said that some 4–5 years ago, while walking in the street on a very hot day he felt slightly dizzy, and on looking at a large sign in front of him he observed that the upper half of each letter was distinct, while the lower half was much blurred. On changing the direction of the eyes slightly, so as to fix directly the lower part of the letters, the lower half of each letter was distinct and the upper half blurred. The line of division between the distinct and blurred portions of the letters extended horizontally the whole length of the sign. The same appearance was noticed on looking at several other signs. This condition lasted only three or four minutes, and was followed by a violent headache.

Dr. Folsom said that some time since he had seen a gentleman, about 40 years of age, who had an attack, similar to what Dr. Wadsworth had described, two or three times a year. He had a father and mother who were insane. The division line was perpendicular, the left half of the object being visible. He had been for some years a sufferer from dyspepsia. He had always been an inveterate smoker. On giving up the use of tobacco, the difficulty in both the eyes and stomach disappeared.

Complete ossification of the Gall-Bladder.—Dr. Tuck reported the case.

A woman, 72 years of age, had been troubled with asthma for many years, otherwise her health had been excellent. For the last five years of her life she had been an inmate of the "home for aged women," and, during this period, she had enjoyed fair health, with the single exception of an occasional difficulty in breathing, owing to her asthmatic troubles. Ten days before her death she was attacked with great dyspnœa. Her pulse was small and frequent. Her face was dusky and her breathing was short and labored. She gradually sank and died in ten days from the time Dr. Tuck was called to see her.

The autopsy was made by Dr. Fitz, who reported that the lungs were emphysematous; the heart enlarged, but showing no valvular lesions. The aorta was extensively atheromatous. At the point of division of the aorta into the common iliacs, a calcified thrombus was found, occupying perhaps one-half of the diameter of the vessel. A calculus, large as the end of the finger, was found filling the *ductus communis choledochus*. The walls of the gall-bladder were completely calcified, the inner surface being in a state of ulceration, and the cavity filled with a purulent fluid.

The specimens were shown to the society

by Dr. Fitz. [The aorta and gall-bladder are in the Warren Anatomical Museum.]

Two Cases of Hysterical Cough.—Dr. Swan reported the cases.

A few days since he had been called to see a boy, about seven years of age, who, the day before, had been suddenly seized with a short spasmodic cough. There was no disturbance whatever of the general health. The cough was hard and dry, and consisted of short single efforts, very frequently repeated, so that at the longest it was impossible to count eighty between the sounds. He prescribed the tincture of hyoscyamus, and within an hour the intervals began decidedly to lengthen, and rapid recovery followed.

A few months before, he had been called to see a little boy who was suffering from a rapidly repeated cough, — a low-pitched, dry bark, — accompanied, as in the former case, by no disturbance of his general health. In a few days it yielded to the administration of bromide of potash.

Dr. Edes alluded to the case of a young girl, formerly under his care, who, in addition to a number of other hysterical symptoms, was troubled with a cough. It was finally relieved by his telling her not to cough till he saw her again — an interval of twenty-four hours. She made the effort and was successful.

Cancer of the Stomach. Slight Gastric Symptoms.—Dr. J. G. Blake reported the case.

A Scotchman, aged 60, was admitted to the City Hospital, August 18, 1871. He stated that he had always been well until December, 1870, when he had an attack of "chills," accompanied by nausea, but no vomiting. Three similar attacks occurred during the next four months. On entering the hospital he complained of a cough and more or less pain in the lower left chest. No expectoration. Appetite poor. No gastric distress after eating. Bowels generally constipated. Countenance pale. Pulse 92. An examination of the chest showed nothing abnormal, except a dulness on the left side, from the seventh intercostal space downwards, and continuous with a small smooth tumor felt in the left hypochondrium. A month later the pain was reported as being so severe as to prevent sleep. A month later the patient complained of some slight gastric distress after eating. He was discharged, at his own request, November 6th, relieved.

January 22, 1872, he re-entered the hospital complaining of some gastric distress after eating, accompanied by distention of the abdomen and frequent eructations of air or sour fluid. No tumor whatever could be felt by external manipulation. Two weeks after his second entrance he began to fail rapidly. The cough and expectoration increased, and he died February 13th.

Dr. Webber showed the specimens, and gave the following account of the autopsy:

The posterior portion of the left chest formed a cavity by the adhesion of the lung at about a vertical line from the axilla. This cavity contained ℥xxiv. of a purulent fluid. Portions of the lung were consolidated, as was also the case with the right lung. The lower edge of the liver was pretty well degenerated into what appeared like a mass of cancerous nodules. The disease had also invaded the stomach, just below the cardiac orifice, towards the lesser rather than the greater curvature, and extended over a surface about five inches in diameter. The spleen was adherent to the diaphragm and the large intestine as well as to the stomach and the pancreas. The stomach was adherent to the spleen and to the colon, where it passed across the stomach. The pancreas was also involved in the cancerous degeneration. Small spots of cancerous deposits were found scattered over the peritoneum. The mesenteric glands were also greatly degenerated. The cortical substance of the kidneys showed fatty degeneration.

Dr. Haskins said he had recently seen a case where all the symptoms were referred to the stomach. Upon examination of the thorax extensive disease of the left lung was discovered. The patient had never had any cough, hæmoptysis, or any other symptom which would lead to the least intimation of any thoracic trouble.

Three Cases of Suffocation from Coal-Gas. Inhalation of Oxygen.—Dr. J. G. Blake reported the case.

Three men had recently been brought to the City Hospital who had been nearly suffocated by inhaling coal-gas. A fourth occupant of the room, in which these men had slept, had died. Fresh air and stimulants were resorted to; but the most marked effects followed the administration of oxygen gas. The inhalation of this agent was followed by an almost instantaneous improvement in the condition of the patients. This relief was followed at first by a relapse whenever the administration of the gas was discontinued. Soon, however, the improvement became permanent, and the patients were discharged well.

Medical and Surgical Journal.

Boston: Thursday, August 29, 1872.

THE PATHOLOGY OF SMALLPOX.

Dr. Blakewell has an article in the *Medical Times and Gazette* of June 22d ult., which threatens to revolutionize some of the traditional notions of the pathology of variola. He has evidently devoted himself to his task with great zeal and patience, and his views are certainly worthy of study. We shall look for their confirmation or refutation at the hands of other observers as a subject of obvious consequence in pathology.

The early stage of the eruption, which is usually described as papular, he claims to be vesicular; for if a point be opened with a needle, a drop of transparent, colorless fluid will exude. If this fluid be examined microscopically, under a lens of 200 or 220 diameters, it will be found to contain epidermic cells and a few floating rounded corpuscles, having from two to four nucleoli. These variolous corpuscles daily increase in number, and in a day or two a new form appears. This is a proliferous cell large enough to contain from three to five of the smaller corpuscles. These proliferous cells appear to burst and to discharge their contents, as there are always to be found with them flat, circular bodies of the same size, of a structureless membrane and without contents. On the seventh and subsequent days, when the contents of the *variole* become thick and opaque, it will be found that the opacity is due to the multitude of proliferous cells, granules and free nuclei, which so fill the fluid as to be hardly able to float about in it. On and after the ninth day, the proportion of these gradually diminishes, and the medium-sized corpuscles predominate. The author denies that there are any true pustules in the disease; the same elements being found in all the stages of the eruption, whether designated as papular, vesicular or pustular.

As to the contagium of the disease, he believes these corpuscles to constitute it. As far as his microscopical examinations of the blood have extended, he has found corpuscles exactly resembling those which have been described, on the first day of the eruption, and none were found in that fluid on the third day. He believes that the variolous contagium enters the system chiefly through the mouth and lungs; "that, entering generally in a dry condition—in a state of suspended animation as it were—it must first return to the condition in which it was previous to the drying up of the *variole* in which it was formed." It then rapidly grows, and is reproduced, until the corpuscles become so numerous as to interfere with the normal nutrition of the nervous system, particularly the ganglionic. Hence arise the febrile symptoms, which increase in severity until the matter foreign to the blood is thrown out of it in the eruption, the fever then disappearing. The secondary fever—coming in the stage usually known as the pustular—he maintains has nothing to do with blood-poisoning. It is caused by the local pressure and irritation of the distended varioles.

By what process the fully developed *varioles* (generally considered pustules) become detached from the skin in desquamation, whether by ulceration with the development of pus and a consequent loss of the tissue, or by some other degenerative process, is not made clear.

CAN HABITUAL DRUNKENNESS BE CURED.

According to the *British Medical Journal*, June 29th, "The [Government] Select Committee, appointed to inquire into the best plan," &c., will report, among other matters committed to them:—

"That it is in evidence as well from those who have conducted and are still conducting reformatories for inebriates in Great Britain, as by those who are managers of similar institutions in America, that 'sanitaria,' or inebriate reformatories, are producing considerable good in effecting amendments and cures in those who have been treated in them.

"The average number of cures is stated to be from 33 to 40 per cent. of the admissions, this percentage being based upon subsequent inquiry, from which the cures appear to be as complete and permanent as in any other form of disease, mental or physical. The average time occupied in effecting these cures is stated at from 12 to 16 weeks in America. For the English institutions, the period has been longer.

"That the proportion of cures is not larger, is attributed by all the witnesses to a lack of power to induce or compel the patient to submit to treatment for a longer period; and that power is asked for by every one who has had, or still has, charge of these institutions. Without such a power, it appears that the results must be imperfect, disappointing, and inadequate to the efforts made."

The Committee advise this power to be given—the period of detention in the case of those "convicted" to be fixed by the Court of Inquiry—with sufficient safeguards and guarantees on all parties. The Committee also recommend severer dealing than hitherto with drunkards themselves, for first and second offences—to prevent, if possible, the formation of the habit; also with the sellers of liquor after due notice has been served on them by police or relatives.

The report of this Committee must be worthy of the most thoughtful attention and confidence of all interested in the much needed improvements in the control and treatment of drunkards.

THE AMERICAN DENTAL CONVENTION.—The 18th annual meeting of this body has just been held in Boston. The proceedings were not of very general interest. Some discussion took place as to who was entitled to the discovery of the anæsthetic use of ether, and upon the transplanting of the teeth.

The growing feeling among the profession for filling teeth instead of extracting them was also commented upon. Dr. J. H. Wetherbee, of Boston, was elected President for the ensuing year, and, after a pleasant and profitable session, the convention adjourned, to hold its next meeting in San Francisco.

THE ASTLEY COOPER PRIZE.—The next triennial award of this prize of £500 will be made to the author of the best essay on "Injuries and diseases of the Spinal Cord." Essays must be sent to Guy's Hospital before January 1, 1874.

The Month.

DR. TILT'S WORK on "The Change of Life" has been translated into Italian by Dr. Rey, of Rome.

IMPERIAL GOOD WILL.—The Emperor of Austria has contributed 20,000 florins towards the International Congress of Medical Hygiene, to be held in 1873.

SMALLPOX IN VIENNA.—Smallpox is on the increase in Vienna. July 19th there were 72 deaths. The space allowed to smallpox in the general hospitals and the smallpox hospital itself is overcrowded, and it is proposed to build a new isolated smallpox hospital for 100 patients. It is also proposed to build a new general hospital, with 500 beds.

A GOLD MEDAL has been presented to Virchow by the Medical profession of Italy, in commemoration of his visit to Florence in 1871.

A MONUMENT TO HARVEY.—A fund is being collected in England to raise a monument in honor of Harvey, the discoverer of the circulation of the blood, at Folkestone, his native place, on the tercentenary anniversary of his birth. Dr. Bence Jones, of London, is the treasurer of the fund.

DR. HUGHES BENNETT, after a residence of some months in Southern Europe, has so so far regained his health as to be well enough to resume his duties at the Royal Infirmary, Edinburgh.

SOMETHING ABOUT PILLS.—The modern era of explosions influences even the contents of the pill box. Some pills prescribed by a physician in England contained, it is reported, one-half grain nitrate of silver, one-sixth grain extract nux vomica, and one-half grain muriate of morphine, together with *cons. ros.* and extract of gentian. They exploded in a very short time, evolving a considerable amount of heat. A similar case is reported to have occurred at Nottingham, England, where the physician prescribed pills containing four grains of nitrate of silver, one grain muriate of morphia and extract of gentian. The lady patient, who had the box about her person, was badly burned by the explosion. Despising all such chemical, detonating pellets, the Chinaman goes in for those of a thoroughly animal character. Thus, a druggist at Ningpo invites the public to swallow "pills manufactured out of a whole stag, slaughtered with purity of purpose, on a propitious day." It appears that the wealthy wholesale druggists are in the habit of purchasing large and handsome stags, which they expose in a pen at the door of the shop, until "a propitious day" is selected for the animal's conversion into pills, when he is deliberately pounded entire into pulp, from which pills are made. After all, these must be greatly preferable to the "explosive" sort.

In Courlande, France, a Jewish woman has given birth to seven children in eleven months. She had four daughters June 31, 1871, and two daughters and one son the last of May, 1872.

The Ammonia Cure for Snake-Bites.—Recent Australian papers contain accounts of several cases of recovery from the bites of poisonous snakes due to the adoption of Prof. Halford's plan of the injection of ammonia into the veins. This succeeded in several cases after other plans of treatment had been tried without any good effect.

Prof. Agassiz has been elected one of the eight Foreign Associate Members of the French Academy of Sciences, to fill the vacancy caused by the death of Sir Roderick Murchison.

Poor Relief in England.—There was paid in England, during the year 1871, by taxpayers (exclusive of what is given for the support of charitable institutions), for poor relief, including the care of pauper lunatics, the enormous sum of £8,000,000.

Ergot in the Cure of Uterine Fibroids.—In a recent number of *Berliner Klin, Wochenschrift*, Prof. Hildebrandt, of Königsberg, reports a series of cases of fibroid tumors of the uterus treated with remarkable success by the subcutaneous injection of a solution of extract secal. cornut. in glycerine and water.

Infant Protective Legislation.—During the late session of the British Parliament a bill was introduced to prohibit children, under a certain age, from being trained as acrobats.

Childrens' Hospital of London.—A new building is being erected for the hospital for sick children in London, at the proposed expense of nearly $200,000. The corner-stone was laid in July, by the Princess and Prince of Wales.

Aldini Prize.—The Academy of Sciences in Bologna states that a prize of 1,200 lire ($250) will be awarded the author of the best scientific experimental essay on galvanism or dynamic electricity. Such essays must be sent in between July 1, 1872, and June 30, 1874, written in Italian, Latin or French, and addressed to the Perpetual Secretary of the Academy of Sciences of the Bologna Institution.

One Item of Cost in Fuel, and one not always remembered, is the loss of life entailed in its production. During the twenty years between 1851 and 1870, both inclusive, no less than 20,644 persons employed in English coal mines met their death by accident.

Population of Madras and its Increase.—By a recent census the population of the Madras Presidency, which is perhaps one-quarter of the British possessions in India, was found to be over 30,500,000. This is an increase of about 4,000,000 in the last five years.

To the State Microscopical Society of Illinois we owe the only journal devoted to that specialty in the country. "The Lens" is the title of a quarterly, issued from the Lippincott press, of Philadelphia, under the auspices of the above-mentioned Society, and edited by S. A. Briggs, the President. The current issue, for July, is the third number. It is a very handsome pamphlet, illustrated with photographs of microscopic subjects and with excellent plates, and contains admirable papers upon matters of recent investigation.

The Agassiz Expedition.—Letters from Dr. Hill, dated Panama, June 26th, give the safe arrival of the Agassiz expedition in the steamer "Hasler." The steamer proved defective in construction, and they lost over six weeks' time in repairs at various places, and so had time to make but very few deep sea soundings and to carry out the chemical and physical experiments which they had planned. They however have obtained large numbers of specimens of plants and animals, and Prof. Agassiz had already sent home 137 barrels, boxes and cases filled with specimens.

Yellow Fever in New York.—Within the past two weeks three vessels have arrived at New York with cases of yellow fever on board. They were all from ports in the West Indies.

The State Hospital at New Haven will be at once enlarged by the building of two wings at an expense of $40,000, of which the State bears half and the other half is raised by subscription.

Medical Alumni of New York University.—From the catalogue of the graduates and officers of the Medical Department of the University of the City of New York, just published, it appears that 3058 degrees, of which 41 were honorary, have been given by that institution since it was first established.

Dr. Gerhart, of Jena, has been appointed successor to Dr. Bamberger as Professor of Clinical Medicine at Würzburg.

Dr. O. Liebreich, to whom we owe the discovery of the action of chloral, has been appointed ordinary Professor of Materia Medica in the University of Berlin.

A Lady House-Surgeon.—The first appointment of a lady doctor as officer of a public hospital in England has taken place in Birmingham, where Miss Louisa Atkins, holding the degree of M.D. after five years' study at Zurich, has been appointed resident medical officer and secretary of the Birmingham and Midland Hospital for Women. The appointment was made after a competitive examination.

Jefferson Medical College of Philadelphia.—A large endowment fund is being raised for the new college and hospital buildings of this institution, and a generous legislative appropriation is hoped for.

The Newport Hospital Fund has reached the amount of $16,622.

U. S. Marine Hospitals.—There are 75 hospitals connected with the United States Marine Hospital service. The Secretary of the Treasury has directed a detailed report of all operations performed and diseases treated to be sent to him, in order to have a report made out, giving statistics never yet collected.

A Case of Accidental Poisoning recently occurred in London, which reflects but little credit on the discipline and management of the London Hospital. A child having a cough, her father applied at the hospital mentioned, where he saw *the porter*, who furnished him with a mixture, after taking three doses of which the child died with symptoms of narcotic poisoning.

The Efficacy of Special Prayers.—Prof. Tyndall not long since asked, in order to test the efficacy of prayer, that a ward in one of the London hospitals should be set apart where no medicines should be given the sick, but the prayers of the Christian world alone should be relied upon. The request was not granted.

The German Pharmacopœia has been published in Berlin, and on Nov. 1st is to come into general use throughout the German Empire, replacing the different pharmacopœias now in use in the various States.

Advance of the Cholera.—Authentic numerical returns of the cholera in Russia show its steady increase, and that most imminent danger may be anticipated elsewhere from it. Up to July 9th, 197 cases had occurred in St. Petersburgh, of which 81 proved fatal.

Taxation on Medicines in France.—The much-taxed French are even to be denied cheap medicines. In the new raw materials bill additional duties are placed on ipecac, Peruvian bark and other drugs, which it should be the duty of any government to supply to its people as cheaply as possible. The imposition of such almost prohibitory duties can hardly fail to lead to adulterations and the use of cheaper substitutes, from which the public health will suffer.

Medical College of the State of South Carolina.—Dr. E. Giddings has resigned the chair of Clinical Medicine, and been appointed Emeritus Professor of the Institutes and Practice of Medicine.

Dr. P. A. Simpson has been appointed Professor of Medical Jurisprudence in the University of Glasgow. The *British Medical Journal* considers the appointment not the best that could have been made, and adds that "the result of the Crown's decision is most disheartening. Great Britain is not overstocked with men of science. If the legitimate prizes be withheld from the cultivators of science, there will be fewer and fewer workers, and the country will fall more than ever in the rear."

Accidental Death from Poison. — Mr. Maynard, the government apothecary at the Brooklyn Navy Yard, died August 17, from a dose (one drachm) of the tincture of aconite, taken by his own mistake for tincture of ginger. Every effort was made to save his life but without avail, as he died in about ninety minutes.

Deaths from Starvation in London.—From a recent parliamentary report it appears that during the past year there were one hundred deaths from starvation in London.

A Gigantic Accouchement.—Mrs. Bates, the Nova Scotia giantess, was recently delivered of a dead female child, weighing 18 pounds, and measuring 28 inches in length.

The Site of the Pennsylvania University, at the corner of Ninth and Chestnut Streets, in Philadelphia, has been taken for the new post office, which necessitates the early removal of the medical department to West Philadelphia.

Dr. Thomas H. Kearney has been appointed Professor of Surgery in the Miami Medical College, in place of Dr. Foote, deceased.

The Death Rate of San Francisco, in 1871, was only 19.6 per thousand, showing it to be one of the healthiest cities in the world.

Ppofessor Tyndall is expected to reach this country in October. He will probably remain several months, lecturing in the principal cities.

The Origin of Free Dispensaries.—Dr. Sam'l Garth, in 1702, was the first to suggest dispensaries where advice was to be given the poor, gratis. He may be considered the founder of these benevolent institutions.

Female City Physician. — The city of Springfield, Mass., has a female city physician, Miss S. J. Williams, elected several months ago.

At the Vienna Medical School, during the present summer session, there were 1,471 medical students registered, of whom over 500 were Hungarians.

Dr. E. L. Bissell, of New Haven, Ct., has gone out to Peru as surgeon in the employ of the Peruvian government, at a salary of $5,000 per annum.

The Strangers' Hospital in New York has ceased to exist on account of lack of funds on the part of its founder.

Prof. T. G. Richardson, recently Professor of Anatomy in the University of Louisiana, has been transferred to the chair of surgery, and the chair thus made vacant has been filled by the appointment of Dr. Samuel Logan, formerly of the New Orleans School of Medicine.

Health and Spectrum Analysis. — *The Quarterly Journal of Science* mentions a most ingenious use of the spectrum analysis, which will doubtless suggest extending its application to the elucidation of many inquiries where it has heretofore not been appealed to. The case referred to is substantially as follows: The water used by the inhabitants of a crowded court, among whom several cases of typhoid fever had appeared, was drawn from a rather shallow well, and was highly charged with various unoxidized compounds of nitrogen. It was suspected that, from some defect, the contents of a public urinal obtained entrance to the well. The fact that the well-water contained seven times as much common salt as the normal water of the vicinity was some confirmation of the suspicion. Prof. Church obtained absolute proof by the following method: He introduced two grammes of a lithium salt into the urinal, and, two hours later, was enabled readily to detect, with the use of the spectroscope, the presence of lithium in a liter of the well-water, although a previous examination of the latter, made in a thorough manner, had shown no trace of this substance.

Von Græfe. — At the Opthalmological Congress held in Berlin last year, a committee was formed, of representatives of various countries, for the purpose of taking measures to secure the erection of a statue of the eminent ophthalmic surgeon, Albert Von Græfe, in the vicinity of the place where he taught in Berlin. The scheme has received the approval of the Emperor, and local committees are being formed, especially in Berlin, where active measures are being taken to carry out the project in a manner worthy of its object.

Swill and Garbage.—It seems that other cities besides our own have their "nuisances" to "pester" them at this midsummer time. Our friends in Buffalo are now greatly troubled on "the question of getting rid of the refuse matter incident to the daily housekeeping of families, and commonly known by the uneuphonious name of 'swill and garbage.'" What to do with it seems to them even more "serious" than the cabbage-tops did last month to our superintendent of streets (who appears to be our acting Board of Health).

Many people there burn it, regardless of their neighbors' nostrils so long as the odors escape through their own chimney-tops; others "are put to miserable shifts, such as digging holes and burying their swill, or having it spirited away somehow —anything to get rid of it." All this not so much, we are sorry to learn from a "reliable" source, because of the unhealthiness of such procedures, but because the old way, of little carts drawn along the sidewalks by dogs under the supervision of poor women, could no longer be endured. Ladies' dresses were often greatly injured in this way, said our informant with due indignation at such enormities.

The newspapers of the city, however, are down upon the city authorities, accusing them of neglect in stereotyped phrases, and sensation enough created to show that "somebody is moving in the matter." Out of the various odors raised by the stir comes a *sweet little puff* for our methods, which we are fain to copy for the encouragement of those who think our own city never sufficiently alert in sanitary affairs :

"Buffalo," says one of the first newspapers, "has become so densely populated—comparatively speaking—that a system like that in vogue in some other cities should at once be inaugurated here. In Boston, for example, the city itself collects and utilizes the swill and garbage. It provides the cleanest of scavenger carts, neatly painted, with covers to shut down during its movement through the streets, drawn by well-fed, handsome horses, and stopping at each house daily or at very short intervals, to collect the swill, &c., which is kept in a suitable receptacle subject to such calls. . .

"No measure of comfort, that could be undertaken by the city, would be more gratefully hailed than the introduction of this system, which works so well in Boston."

Legislation Against Quackery.—The following is the text of the recent law relative to the practice of medicine in Eastern and Central Pennsylvania :

Section 2. It shall be unlawful for any person to commence the practice of medicine or surgery in the counties of Dauphin, Chester, Carbon, Luzerne, Mercer, Erie, Blair, Bradford, Sullivan, Crawford, Beaver, Monroe, Washington, Venango, Lycoming, Huntingdon, Schuylkill, Lawrence, Somerset, Philadelphia, York, Union, and Adams, who has not graduated with the degree of doctor of medicine, and received a diploma from a chartered medical school or other institution authorized to grant medical diplomas : *Provided*, That the provisions of this section shall not apply to persons who have been ten years in continuous regular practice in said counties, though they may not have graduated as aforesaid, nor to persons who are reading medicine under the control and instruction of a physician or surgeon who has the qualification to practise prescribed by this section, when such person shall have the assent of such preceptor to practise : *Provided, however*, That such student shall not locate in any office or business station outside the usual office of his preceptor.

Sec. 3. Any person who shall attempt to practise medicine or surgery, by opening a transient office in the aforesaid counties, or who shall, by hand-bill or other form of written or printed advertisement, assign such transient office, or other place, to meet persons seeking medical or surgical advice or prescription, shall, before being allowed to practise as aforesaid, appear before the clerk of the courts of the county, and shall furnish satisfactory evidence to such clerk of the courts that the provisions of Section 1 of this act have been complied with, and shall, in addition, take out a license for one year, by payment of a license fee, for the use of the county, of two hundred dollars : *Provided*, That the provisions of this act shall not apply to dentists : *And provided further*, That physicians or surgeons commencing practice in any of the aforesaid counties, with the intention of remaining permanently therein, shall not be subject to the provisions of Section 1 of this act.

Sec. 4. If any person shall violate any of the provisions of this act, every such person shall be guilty of a misdemeanor, and on conviction thereof shall be fined in a sum not exceeding five hundred dollars, or less than two hundred dollars, or imprisoned not exceeding six months, at the discretion of the court.

The largest Medical Library of the country is that of the Surgeon-General's office in Washington, under the charge of Dr. Billings, which numbers 18,000 volumes. The second and third are those of the College of Physicians, 15,000 volumes, and of the Pennsylvania Hospital, 13,000 volumes, both in Philadelphia. The next is the medical department of the Boston Public Library, about 10,000 volumes. The fifth is that of the New York Hospital, 8000 volumes. There are no medical libraries of any extent at the South or West. It is computed that a completely equipped medical collection, embracing journals and all past medical literature, would consist of about 100,000 volumes. The Royal College of Surgeons in London has 65,000 volumes.

Medical Miscellany.

Dr. Edw. Hitchcock, of Amherst College, has recently started on a tour round the world.

Dr. W. L. Fitch died at Nantucket July 20th. He was born at Colebrook, Conn., in 1803. He had practised medicine in Springfield for the past twenty-five years.

Intermittent Fever in Springfield.—A paragraph has recently gone the rounds of the daily press to the effect that many cases of intermittent fever had occurred in Springfield because of defects in the aqueduct which supplies water to that city. We are enabled, on the authority of one of the leading physicians of Springfield, to contradict the statement of the occurrence of the disease and of its alleged cause. It would be a curious study to trace the story back to an inadvertent remark of some garrulous doctor.

The Hay-cutter as an Amputator.—A correspondent writes :—

"I have just returned from dressing the stumps of fingers taken off by a hay-cutter with which the boy was 'playing.' A half dozen boys were about him, or were spoken of, who had suffered similarly by playing with the same machine. Whoever would invent some kind of an attachment which would prevent further using the machine when the workman leaves it, would deserve *a suitable reward;* it should be automaton, or the workman would forget to adjust it."

With characteristic thoughtfulness, our correspondent says that he will contribute largely towards the reward, *provided* a description of the invention be first published in this Journal.

Midwives in the Time of Queen Elizabeth.—The following curious oath is recorded as the condition upon which Mistress Eleoner Pead received a license from the Archbishop of Canterbury, in 1567, to practise midwifery :—"I, Eleoner Pead, admitted to the office and occupation of a midwife, will faithfully and diligently exercise the said office according to such cunning and knowledge as God has given me, and that I will be ready to help and aid as well poor as rich women being in labor and travail of child, and will always be ready both to poor and rich in exercising and executing of my said office. Also, I will not permit or suffer that any woman being in labor or travail shall name any other to be the father of her child than only he who is the right and true father thereof; and that I will not suffer any other body's child to be set, brought, or laid before any woman delivered of child in the place of her natural child, so far forth as I can know and understand. Also I will not use any kind of sorcery or incantation in the time of the travail of any woman; and that I will not destroy the child born of any woman, nor cut nor pull off the head thereof, or otherwise dismember or hurt the same, or suffer it to be hurt or dismembered by any manner of way or means. Also that at the ministration of the sacrament of baptism in the time of necessity I will use apt and accustomed words of the same sacrament—that is to say, these words following, or the like in effect: *I christen thee in the name of the Father, the Son, and the Holy Ghost*, and none other profane words, and that in such time of necessity, in baptizing any infant born, and pouring water upon the head of the same infant, I will use pure and clean water, and not any rose or damask water, or water made of any confection or mixture; and that I will certify the curate of the parish church of every such baptising."

Dr. Cobbold, F.R.S., has been appointed to a professorship of Helminthology at the Royal Veterinary College; so that, in addition to the summer course of medical botany, he will deliver lectures on parasites and parasitic diseases during the winter session.

It is said that 180 German-educated physicians arrive monthly in New York.

Pamphlets Received.—Quelques Observations Chirurgicales, par M. Charles B. Brigham, Docteur-Medecin, Chirurgien en chef de l'Ambulance Internationale de l'Ecole forestière à Nancy pendant la guerre de 1870–1871, &c. Paris. Pp. 101.—Medico-Legal Science, by Thaddeus M. Stevens, M.D., Indianapolis. Pp. 12.—Transactions of the State Medical Society of Michigan, for the year 1872. Pp. 120. (From G. E. Ranney, M.D., Recording Secretary.)

Married,—In Troy, N. H., Carl G. Metcalf, M.D., of Middleton, Mass., to Miss Abbie A. Beckwith.

Deaths in seventeen Cities and Towns of Massachusetts, for the week ending August 17, 1872.

Cities and Towns.	*No. of Deaths.*
Boston	180
Charlestown	18
Worcester	35
Lowell	20
Milford	4
Chelsea	13
Cambridge	35
Salem	14
Lawrence	25
Springfield	7
Lynn	22
Fitchburg	4
Taunton	10
Newburyport	11
Somerville	10
Haverhill	9
Holyoke	8
	425

Prevalent Diseases.

Cholera Infantum	126
Consumption	39
Typhoid Fever	25
Dysentery & Diarrhœa	16

Boston reports seven deaths from smallpox.

George Derby, M.D.,
Secretary of State Board of Health.

Deaths in Boston for the week ending Saturday, August 24, 190. Males, 99; females, 91. Accident, 3—pulmonary atelectasis, 1—inflammation of the bowels, 4—bronchitis, 4—inflammation of the brain, 2—congestion of the brain, 2—disease of the brain, 5—cancer, 2—cholera infantum, 50—cholera morbus, 3—consumption, 28—convulsions, 1—cyanosis, 1—debility, 3—diarrhœa, 8—dropsy of brain, 6—drowned, 1—dysentery, 5—scarlet fever, 5—typhoid fever, 11—disease of heart, 4—hæmorrhage, 1—homicide, 2—intemperance, 1—disease of the kidneys, 4—lead poisoning, 1—congestion of the lungs, 2—inflammation of the lungs, 6—marasmus, 11—old age, 2—premature birth, 1—peritonitis, 1—persistent vomiting, 1—smallpox, 4—sunstroke, 1—teething, 1—whooping cough, 1—unknown, 1.

Under 5 years of age, 105—between 5 and 20 years, 12—between 20 and 40 years, 32—between 40 and 60 years, 21—above 60 years, 20. Born in the United States, 148—Ireland, 30—other places, 12.

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Original Communications.

OBSERVATIONS UPON OVER-WORK AND STRAIN OF THE HEART.

By J. B. Treadwell, M.D. Harv.

Read before the Massachusetts Medical Society, at the Annual Meeting, 1872.

Cardiac disease has usually been regarded as arising almost exclusively from rheumatism in the young, and nephritic troubles, rheumatism and atheroma in the old; and, so far as I am informed, this is still the teaching of the standard authorities. Bodily labor and mechanical causes, as productive of cardiac lesions, are almost unmentioned in nearly every text-book, and, where alluded to, are mentioned in so vague and uncertain a manner as to discourage rather than stimulate investigation of a class of cases thus originating; for there is a certain and well-defined class or group of lesions of the heart, induced by and traceable directly to excessive bodily labor as their cause; and these cases, once recognized in their true nature, are ever afterwards impressed upon the observer as radically different in cause, pathological changes and general course from any and all other classes of cardiac affections. To say nothing of the peculiar rational symptoms attendant upon these cases, when once a heart of this kind has been listened to, with a comprehension of the nature of its lesions, the observer would never afterwards fail to distinguish at once between the sounds proceeding from a heart thus disabled and those of one suffering from the effects of any of those causes more generally regarded as almost the only agents directly productive of structural changes in the heart. The sounds, tones, murmurs and rhythm of a heart thus affected are peculiarly its own, and as distinct from a rheumatic heart, for instance, as is a crepitant from a mucous râle.

From personal observation, I have for some years been strongly impressed with the peculiarities presented by this class of cardiac troubles, but until a few days since, when I commenced the preparation of this paper, I have preferred to pursue my investigations independently of any information from other sources, in order that, having thus acquired some knowledge of this class of cases and arrived at a somewhat definite opinion in regard to their nature, I might be able, with greater advantage, to compare my observations and conclusions with whatever published matter I might find touching upon the same subject. Since I commenced the preparation of this paper, however, I have pretty thoroughly looked up the literature of the subject, and have found essays and special papers bearing more or less upon the subject, as follows:—

An article upon "The Effects of Overwork and Strain of the Heart and Great Bloodvessels," by T. Clifford Allbutt, M.D., Physician to St. George's Hospital. *St. George's Hospital Reports*, vol. v., 1870.

"Diseases of the Heart among Soldiers," the "Alexander" Prize Essay for 1870, by Arthur B. R. Myers, Asst. Surg. Coldstream Guards.

"Mitral Regurgitation arising independently of Organic Disease of the Valve," by J. S. Bristowe, M.D., F.R.C.P., Physician to St. Thomas Hospital. *British and Foreign Medico-chirurgical Review*, 1861.

"On the Mechanism and Sounds of the Dilated Heart," by Prof. W. T. Gairdner, M.D. *Edinburgh Med. Journal*, July, 1865.

Dr. Peacock, in the Croonian Lectures of 1865, refers incidentally to this subject, which he also mentions in his work on "Valvular Diseases of the Heart."

Prof. Parkes has also, I think, referred to the same subject in some of his lectures.

To these papers I shall frequently refer, simply naming the writer; taken together, they throw a vast deal of light upon a subject in respect to which scarcely anything else, of a definite character, has been written. The cases of the class or group of affections of which these papers treat, are alleged by all of these gentlemen, more or less distinctly, to be due to mechanical causes, although there is much difference of opinion as to the exact nature and course of the pathological changes involved.

Their fields of observation have also been somewhat varied. Dr. Allbutt writes from observation in civil life, while Mr. Myers speaks from experience confined almost exclusively to military service, and Dr. Peacock alludes to the frequency of dilatation of the heart and its sequelæ among the Cornish miners, "who, after heavy hammer work during the day, are compelled by their own power to raise themselves from the pit-bottom when their day is done; an hour of ladder climbing being often required of them in the evening."

My own observations in this line have been almost exclusively confined to cases originating in military service. I had unusually good opportunities while in service to observe these cases in their development, from the fact that I had under my professional care at different times bodies of green men below the average age of enlistment, and, in consequence of certain circumstances attendant upon their enlistment, of less than the average amount of physical vigor—two of the strongest predisposing causes to cardiac trouble of this kind. Of these cases, however, I have no full notes; consequently they are unavailable for statistical purposes, and are therefore only alluded to here as bearing upon the general pathology of cardiac over-strain.

The later development and results of these affections, as observed in soldiers who served in the volunteer forces during the late war—1861 to 1865—in the examinations made by the Boston Board of Pension Surgeons, during the past year, will therefore serve as the statistical basis of this paper; and I wish here to remark that each of the cases below recorded was carefully examined by one of my colleagues, Dr. Horace Chase, a gentleman most thoroughly accomplished in the pathology and diagnosis of thoracic affections, and by myself, independently of each other, and in all of the cases given our respective opinions coincided as to the particular lesion present in each case.

The necessarily confined limits of this paper forbid my giving individual cases or entering into any of numerous details. For want of time I can only allude to my recorded cases in the most general way, and, for the same reason, I shall say nothing specially of those cases which I have observed among civilians, those of military origin forming by far the largest number of cases, and therefore being the most available for statistical purposes. But both classes, military and civil, are etiologically and pathologically identical, and therefore the lessons, prophylactic and therapeutic, which we may derive from one class are applicable also to the other.

Cases of heart disease form a large percentage of the sum total of disabilities for which men are invalided from military service.

A committee appointed by the British Government to investigate the subject of heart-disease among soldiers, reported, in 1864, that from 1861 to 1863, the ratio of men invalided from this cause was 3·92 per 1000, and those invalided for all other causes 26·89 per 1000 of the total strength; showing that more than one in seven of the whole number invalided were disabled from cardiac disease, and this in time of peace. In time of war and active campaigning, with accessions to the army of a greater proportion of new and young recruits, the ratio would be much greater.

Mr. Myers gives a table showing the comparative death-rate in civil and military life—the civil statistics referring to the males of London—from which it appears that the ratio per 1000 deaths from diseases of the circulatory system in civil life is ·77, and in military life ·9. He also gives a table which shows that 22·56 per 1000 of the recruits examined are rejected from this cause. Now when it is remembered that these revert to the civil list, and also that many soldiers discharged from service for disease of the heart and other circulatory organs, and dying subsequently, are classed in the civil death-rate; and, further, when it is remembered that the death-rate from diseases of the circulatory system in persons who have passed the age of 45 is greatly in excess—in proportion to the number living—of that of earlier years, and that but few men remain in the service after that age, it will be at once apparent that the disproportion of deaths from the same causes in the two classes is far greater than is indicated by the above figures.

Inspector General Lawson, in the British Army Medical Report for 1866, gives statistics fully confirming the above.

Through the kindness of Brev. Maj. Gen. Joseph K. Barnes, Surg. Gen. U.S.A., I have been favored with statistics from Vol. I. of the Medical History of the War of the Rebellion—not yet issued—showing that during the war 10,636 white and 161 colored soldiers were discharged on "surgeon's certificate of disability" for "heart disease." The tables from which these figures are abstracted show the cause of discharge of about 200,000 men, or over two-thirds of the number actually discharged during the war.

Thus out of every 1000 discharged, 53 are discharged for disease of the heart. Now the proportion of heart cases among the pensioners which we have examined is much greater, being 80·74 per 1000. This increased ratio is accounted for, in part at least, by the fact that a large number of men, literally thousands, were discharged as suffering from various diseases, when in fact their disabilities consisted in disabled hearts—"general debility," "pulmonary disease," "sunstroke," &c., representing thousands of these cases. Therefore the ratio must approximate, at least, that obtaining in our examinations; certainly it cannot be much less, as the deaths which have occurred among men discharged for gun-shot wounds, hernia, and other disabilities of a purely surgical nature—which, according to the roll of invalid pensioners of the Boston Agency, constitutes rather more than 80 per cent. of the whole number—must have been, from the very nature of the disabilities, proportionately less than among those discharged for disabilities of a purely medical character.

Nearly 70 per cent. of the heart cases hereafter alluded to originated previous to the autumn of 1863. They originated also in groups, according to the exigencies and hardships of the service. The Peninsular campaign, the Banks retreat, and the forced marches to Gettysburg, each furnished a large number of cases. The arduous service of the armies of the West may have been equally productive of this class of cases, but as few troops from this State participated in the more severe campaigns of that section, the number of cases originating there which have come under our observation have been comparatively small.

During the first two years of the war the weak men were weeded out by hardship and disease, and the physical condition of the recruits furnished during the last two years being better—with a few exceptions, as in the case of regiments enlisted for short terms of service, and which saw but little active duty—than those enlisted earlier in the war, there were very much fewer cases resulting during this period of so marked a character as to disable the men from manual labor during the remainder of their lives; but many men in whom these lesions were but slight at first, and of slow progress, but still progressive in consequence of continued subjection to the exciting cause, served, on and off duty, throughout their terms of enlistment, and were discharged by "expiration of term," or the close of the war, with hearts more or less permanently damaged from overwork; and after a careful examination of three or four thousand pensioners, I am satisfied that more than three-fifths, if not more than three-fourths, of them have hearts structurally damaged to a greater or less degree, and this I am convinced will hold true to a great measure of all infantry soldiers who served faithfully for two years or more in the Army of the Potomac.

Personally, these men are conscious that physically they are not what they were before enlistment; that they have infinitely less power of endurance; but just why, they do not know.

Age, or rather the lack of it, has a strong bearing upon the production of these lesions. In our cases, given below, in which there was no evidence of rheumatism, the average age was only 24·47 years, while in those of rheumatic origin the average age was 42.35 years—both at time of origin as nearly as known. The reasons, or rather the one great reason, for this is so obvious that it is unnecessary even to mention it.

Among 2,477 pensioners examined between June 30, 1871, and May 1, 1872, for disabilities contracted in the U. S. military service during the late civil war, we found 199 suffering severely from some form of cardiac disease, against 266 disabled from other diseases of a purely medical nature; the remaining 2,012 being disabled from causes of a surgical nature. Of the 199 suffering from disease of the heart, 6 had had acute rheumatism, and should therefore be eliminated from the number of those originating from the cause named as the subject of this paper; 39 had suffered at one time or another from chronic rheumatic pains and other symptoms of rheumatism, and although in some of these there was not the slightest positive evidence that the cardiac lesions were in any way of a rheumatic origin, yet for the sake of the greatest possible accuracy, I exclude them also from the cases under consideration, in which, upon careful examination, we could not detect the slightest trace or history whatever of any morbid diathesis or organic disease preceding the cardiac affections; 5 cases were the result of sudden and severe violence to the chest walls, producing very marked and peculiar lesions of the heart—in two cases most certainly, I think, valvular rupture—and these also are counted out, leaving, as I before stated, 150 cases which it seems to me there can be no doubt were the result of strain and over-work of the organ in question.

[To be continued.]

FIVE SUCCESSIVE MIDWIFERY CASES.

By Wm. P. Bolles, M.D. Harv.

These were my first five midwifery cases after my graduation, and they are reported to illustrate the practical difficulties to which chance may expose the recent graduate.

I.—The first patient was an English woman, twenty-seven years old, and mother of five children, three of whom are still living. She became pregnant this time while nursing her last baby, without an intervening menstrual turn, and quickened last Thanksgiving.

On February 13th she walked about two miles, and again started on the following day to attend some national festival, going a short distance by rail, but was overtaken by an escape of fluid from the womb, and forced to return. This discharge continued gradually all day, and by night, when I first saw her, she had wet a number of cloths. The abdomen was then small, the uterus just passing the umbilicus. The cervix was long, and its internal os firmly closed. No pain. Belly rather flaccid. Ordered rest, opium, &c.

Three days after, the uterus was still further reduced, and seemed to closely embrace the child, which lay obliquely from the right downward to the left; an occasional grinding feeling came before the escape of water, but no real pain. She went on in this way, losing the amniotic fluid gradually and painlessly, for twelve days before true labor began. The pains began at about four o'clock in the morning. In three hours or so the os dilated so as to show a foot presentation, both feet being high up and lying side by side, *but with one heel pointed forward and the other backward*; the outer border of one foot lying against the inner border of the other. From this time till nine or ten o'clock, no gain was made, although the pains were frequent and strong, the presenting parts appearing to be unable to enter the pelvis. I then drew down the left foot, whose heel was directed toward the symphysis, and moved the toes of the other across the left leg, so that this, too, might take a like position. By this means the trouble was removed, and labor ended in a few minutes, without further help. The child was made to breathe after considerable difficulty. It was quite small and feeble.

The legs, in this instance, must have been crossed like a tailor's, with the knees so wide apart as to rest on the brim of the pelvis. The mother's recovery was rapid, and both are now perfectly well.

II.—Mrs. G., a fat Irish woman, of a hundred and ninety-five pounds weight, and somewhat given to gin-drinking, was the next to call me. She was twenty-seven years old, had been married two years, aborted about a year ago "from a fright," and had been pregnant since the end of July. Several months before delivery, her legs began to swell, and œdema of the arms and face afterwards appeared, that of the face and right arm being quite slight, while that of the other arm (on which she lay) and of the legs was very great. Her tissues were coarse and flabby, her skin pale, and between weakness and clumsiness she could scarcely walk. The urine was examined about a month before delivery, and then contained one-eighth of its bulk of albumen, but no casts. Remedies were left with her at this time, but, after taking one or two doses, with true national caution she omitted them, "lest they might injure the child."

The membranes broke in the evening of March 12th, without pain, and labor began next morning, at about seven o'clock; but although the pains were very good during the day, the os dilated very slowly, and by evening had only attained the size of a dollar. Hyoscyamus and laudanum were given at night, and she slept readily and snored loudly between the pains, which were only ten minutes apart. The head of the child was presenting. On the morning of the 14th the os was nearly dilated and slowly enlarged until evening, when it became fully opened. At four o'clock in the afternoon the pains diminished, but immediately returned on catheterizing and relieving her of a large quantity of urine. Ol. tiglii was given in the morning, and operated freely during the day. The position of the head could at no time be made out, because, the membranes having broken early, as fast as the os dilated, the scalp became so œdematous that neither sutures nor fontanelle could be felt. Pulse about 90. During the evening, a neighboring physician having been called, it was decided to give the patient an opiate, as the pains had again receded, and wait until the termination of its effects. She slept as before, snoring loudly and waking occasionally, tormented by ineffectual pains, until an hour and a half after midnight, when she was seized with a severe convulsion, principally of the left side. I immediately proceeded to bleed her, but on account of her excessive fat no veins could be seen, and it was only after a little delay that about ℥xii. could be obtained. My neighbor, who was at the same time sent for, then arrived, and with his assistance a large living male child was delivered with the forceps. These were applied at the sides of the pelvis, since the head was above the brim, and brought the child down with his face to the pubes. The labor lasted about forty-four hours. The mother remained comatose for six hours. At four o'clock (an hour and a half after delivery), she began to twitch and show other signs of an approaching convulsion, which were checked for a while by ether, when it occurred to me that I had neglected to empty the bladder at the time of delivery; this was done, and no further trouble of the kind followed. Pulse 116. The bladder was paralyzed for several days, and slightly inflamed for as many more. The child, on its second day, had two slight convulsions, but no more.

Both albumen and casts were found in the urine of the mother, after delivery. She made a slow recovery, but both mother and child are now apparently well; the urine has not been examined since.

III.—The third case was an American, twenty-seven years old, large and strong. She had been married nine months, and dates her conception a month after marriage. She moved her home on the twenty-seventh of March, and worked quite hard laying carpets. During the night following she slept badly, on account of vague, restless pains, but no true labor began until about seven o'clock in the morning. About an hour after, when I saw her first, the os was dilated, the sac unbroken, and the head in the usual left occipito-iliac position. The abdomen was very large and broad, and the uterus felt solid on each side. The pains were hard and frequent. The labor went on naturally, and the child was born about eleven o'clock, with so short a cord that, in order not to break it, the child's body had to be doubled up as it came out. The sac of a second child then presented, and this was born by the breech in about half an hour more, with more than two entire turns of the cord drawn quite tightly around its neck; these could not be loosened before the birth of the head. This was assisted without delay with the finger in the mouth, the face being as usual toward the sacrum. This child did not breathe nor respond at all to the usual means of stimulation, so that I was obliged to inflate its lungs with my own mouth; after a few moments of this assistance it was at last able to respire for itself. The placenta followed in a few minutes. Although she was a primipara, in less than five hours from her first pain, the whole delivery was finished. Both children were girls, rather small and about equal in size. The placentæ were united along one-fourth of their borders, the cords were inserted several inches apart, and the sacs partly united but with separate cavities. Mother and both children are now well.

IV.—This case was an American, about thirty-two years old. She had been married about fourteen years and had two living children, one of twelve years and the other half as old. Besides these she had had a number of abortions, which she had produced upon herself, some of which had been attended with frightful hæmorrhage and long convalescence; after one of them she was confined many months to her bed. Her first labor was natural, but the second was attended with much flooding. She had unsuccessfully attempted the life of the second child, and repeatedly that of this last one, first, by herself with the syringe, and afterwards by the advice of a "Female Homœopathic Physician," but without in either case accomplishing her purpose. I saw her some time before delivery, and as she was then pale, gave her the "Tincture of Iron," as she afterwards said with good effect. She was delivered of a large child, after a rapid and apparently normal labor, the only peculiarity being that the membrane did not break, but had to be torn away from the child's head as it appeared at the vulva. The placenta soon followed entire, and the uterus contracted well, but soon after it softened a little, and she began to call for air and to feel faint. The open hand was then laid on the abdomen, with moderate pressure, and held there about an hour. The hæmorrhage was slight. Next day she looked well, the pulse was low and the strength good, the uterine discharge had been free during the night, but not abundant. She complained considerably of pains in the womb and back, coming and going, like after pains. On the following day (the second after the delivery) I did not call, having warned the nurse to send for me if anything untoward occurred, but on the third, when I did go, a severe chill was reported to have occurred on the preceding day, followed by fever and an increase of pain and tenderness about the womb. At the time of the visit she was in considerable suffering, the uterus and lower part of the abdomen were tender and swollen, the uterine discharge had diminished; there was some looseness of the bowels, and a cadaverous odor pervaded the room. Pulse 108, feeble. Temperature 103°. Tongue slightly coated. She was ordered quinine in full doses, opium for pain, a carbolic acid solution for a vaginal injection, hop fomentations.

On the next day she was better, all the symptoms being palliated; the pulse was below 100, the temperature 101°, and the uterine discharge had again become natural and not offensive. On the 5th day she looked still more encouraging, the pulse again being lower, and the countenance and skin natural. The tenderness and size of the womb were even more reduced. She had turned to her side, and looked comfortable. The bowels remained a little loose, and there was yet some pain. The milk had never stopped, and she nursed her child without difficulty. There were several rigors, but no marked chill as there had been each day previously.

Next morning, before breakfast, she had a severe chill again, and all her symptoms were aggravated. Her pulse was 120 during the chill, and feeble. Stimulants were ordered, but I never saw her again, for during the day a homœopath was called in, and under his care she died in about forty hours, slightly more than a week from the date of delivery. An examination was asked for by the husband, but this the "physician" refused to make, because it was "too dangerous an undertaking, and he knew just what it would show."

V.—The fifth case was an Englishwoman, about forty years old. She had had five children, and has been subject to some uterine displacement for a number of years, causing distressing back-ache and constipation.

Labor-pains began early on the morning of the 15th of May, and continued rather irregularly during the twenty-four hours following, the os slowly dilating to the size of a dollar or a little more. The whole womb was tipped badly forward, and its mouth faced the promontory of the sacrum, so that it was only with the greatest difficulty that the finger could reach its anterior border. The membranes had no chance to bulge out with the contractions; to this cause was no doubt in part due the extreme slowness of the labor. A face-presentation was made out, but there seemed to be no gain toward delivery. Once or twice the os was drawn down with the finger, but it immediately returned. The woman was then, on the morning of the 16th, placed upon her back and the anterior lip held down by two fingers during three or four pains, until finally the os was made to present pretty fairly. The face could then be plainly felt through the still unruptured membranes, and the forehead, eyes, nose, mouth and chin detected in succession from left to right. Still the presenting part did not readily engage, although the os was now dilated, so after a few more pains an attempt was made to change the presentation. The child's body was lying quite obliquely from right downward to the left, there was considerable water in the womb, the head was somewhat movable, and the membranes still unbroken. The patient was placed again on her left side, and while with one hand on the abdomen the child's body was carried slowly to the left, a finger or two of the other were used to push, first the lower, and then the upper jaws upward and to the right. In this way the forehead was made to face the vagina, but no further gain could be made until after a few more pains the head again became movable, when, the fingers against the forehead, using the other hand as before, soon succeeded in pushing this up and making the occiput present in the usual left anterior position. The membranes were then ruptured (they were very strong), and a female living child, weighing ten and a half pounds, was born in half an hour.

The mother's recovery was slow, and she is now under treatment for retroflexion of the uterus, which was no doubt her old difficulty.

Boston, August, 1872.

THE TINCTURE OF EUCALYPTUS GLOBULUS AS A DRESSING FOR WOUNDS.—M. Demarquay, in the course of some experiments at the Maison Municipale de la Santé of Paris with the tincture of the leaves of this plant, which has a very agreeable odor, and is believed to possess disinfecting, antiseptic, and healing properties, found that it often gave good results in cases in which the more usual remedies had failed. He adds that the tincture acted not merely by disinfecting and ameliorating the surface to which it was applied, but that its effect in removing the fœtid odors which had rendered the patients unable to eat or sleep was still more beneficial.—*Phil. Med. Times.*

Progress in the Med. Sciences.

REPORT ON ANATOMY.*

By Thomas Dwight, Jr., M.D. Harv.

It is proposed to consider, in this report, the present position and recent progress of human anatomy, but the lines dividing it from the kindred sciences of physiology and pathology are so vague that it may be hardly possible to avoid overstepping them; anthropology and comparative anatomy will also obtrude themselves in the discussion of certain questions. No apology is necessary for introducing histology, as it forms a legitimate part of the subject.

Methods.

Mr. H. G. Howse, in *Guy's Hospital Reports* for 1872, describes, under the head of Embalming, the method he has invented for preserving subjects. He considers glycerine the great preservative agent, but as it fails to keep off maggots and mould, he uses also arsenic, and sometimes carbolic acid. He recommends to make glycerine take up, by boiling, a pound of arsenious acid to the quart. He injects (from the femoral) about one quart and a half of this mixture, and then continues with pure glycerine, till about two gallons of fluid have been injected. The subject by this time has become very œdematous, and effusions have occurred, so that it is well to wait two or three days before injecting another gallon of glycerine. The subjects keep admirably, the muscles being bright red when exposed several months later; after exposure, however, they soon become brown. The injection is made through a syphon from a reservoir placed from three to six feet above the subject. The cost of the materials, including that of paint used in the subsequent arterial injection, is about thirty shillings sterling, or $7.50 in gold, supposing prices to be the same here as in England.

There is nothing particularly new about this, as similar injections have been made in various places, as shown by the following extracts from the *Records of the Boston Society for Medical Improvement*:—April 24th, 1871. "Dr. Porter showed two specimens, a leg and a fœtus, preserved by a process of injection first used by a Russian, Dr. Vivodtsef. The mixture used consists of equal parts of glycerine and water, with one-tenth of carbolic acid. The specimens shown had been in the dissecting-room all winter, simply wrapped up in dry cloths. They were perfectly soft and pliable, and, on cutting through the skin, the muscles looked red and natural. He had tried Gamgee's method—injecting with a solution of chloride of aluminum—but the specimen had dried up, as did one in which he had substituted alcohol for the glycerine in the Russian mixture. . . . ." "Sept. 23d, 1871. Dr. Porter showed a leg which, five months ago, he had prepared with his preservative mixture, and which had been exposed during the summer to very trying circumstances of temperature. The color was very natural and the specimen was perfectly flexible."

The preservation of dissected parts as flexible preparations is not likely to have any very extensive use, as it is necessary only where fresh subjects cannot be obtained. It is well, however, to have such specimens in museums, to show the relations of parts. For certain pathological preparations it is superior to any other method. The reporter has shown, in a paper "On the Preservation of Anatomical Specimens," read at the annual meeting of the Massachusetts Medical Society in 1870, that various preservative mixtures of which glycerine is the basis, with or without a small proportion of alcohol, containing carbolic acid or chloride of sodium and nitrate of potash, &c., will preserve shape and flexibility in a very satisfactory manner, but not the color.

The attention lately given to the study of the convolutions has led to several new methods of preparing the brain. The following method, in use at the Anatomical Institute of Munich, renders the brain tough and flexible. The fresh organ is put into a solution of chloride of zinc, the strength of which is roughly estimated by throwing a piece of fresh muscle into water and adding zinc till it has about an equal tendency to sink or float. After four or five days, the brain is put into alcohol, and if this be occasionally changed and the specimen but little handled, the latter retains a very handsome, light-gray color. A later idea is to prepare the brain as a dry specimen. Broca mummifies it as follows:—remove the pia mater, and put the brain into a mixture of five parts of water and one of nitric acid. After two days, double the quantity of acid, and after two more remove the specimen. Place it on rags, which are to be changed two or three times during the first day; on the second it will be pretty dry. Then expose it to the air on a board for from four to six weeks, at first turning it over occasionally, so that it may not lose shape. The size and weight will be considerably reduced.

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* This paper is the first of a series of reports which will appear in the Journal in regular succession. These reports will be prepared by various writers specially fitted for the work, and will present a consecutive *resumé* of the most recent advances in all departments of medical science.—Eds.

The reporter is indebted to Dr. J. J. Putnam for the following account of a new method invented by Meynert, of Vienna. The fresh brain is allowed to lie for a month in 10 per cent. alcohol, which should be renewed from time to time; repeatedly, during the first week. It is then removed to a very strong solution of chromic acid, and left in this for three months. If the fluid equal three times the bulk of the brain, it does not need renewal. The specimen is then put into 30 per cent. alcohol for two or three months, and then into absolute alcohol for the same length of time. It is finally covered with spirits of turpentine and left in an open vessel. When the turpentine has evaporated it may be allowed to dry, and any traces of turpentine can be removed by alcohol. There is no loss of size.

Prof. Hyrtl, of Vienna, in a paper in the *Memoirs (Denkschriften) of the Vienna Academy of Sciences*, 1872, on the renal pelvis (to be reviewed later), gives some hints on the making of "corrosion preparations" by injecting the vessels of an organ and then destroying the soft parts by acid. Hyrtl states that kidneys preserved in alcohol are as good for this purpose as fresh ones. For non-lobulated kidneys strong hydrochloric acid may be used at once; but for others, in which the arrangement is more complicated, it acts too energetically, and the organ should pass a week in a mixture of three parts of acid and one of water before the strong acid is used.

MICROSCOPY.

In regard to microscopes, it is very gratifying to see Prof. Rutherford's remarks *(Quarterly Journal of Microscopical Science)* in praise of a simple instrument, now that those chiefly used in England and America are rendered complicated and expensive by mechanical appliances to do what the educated hand can easily accomplish. He says:—"The microscope which, in my opinion, is by far the best for the student and any one who wants really to work is that made by Hartnack." We admit that it is not the best for those wishing to play with diatomes and test lines; but if any one with a good "Hartnack" is unable to do first-class work in histology he may be sure that the fault is not in the microscope.

The nomenclature of objectives has of late been discussed by Ward, in the *American Naturalist* for March, 1872, and by Woodward, in the *American Journal of Science and Arts* for June, 1872. There are also some articles on the subject in several of the later numbers of the *Monthly Microscopical Journal.* An universal nomenclature would, indeed, be a great convenience, but we fear is not to be expected.

The subject of micro-photography is a more important, and also a more hopeful one. It is, perhaps, not too much to hope that in a few years the original photographs will take the place of drawings. There will then be less doubt than now as to how many effects are due the draughtsman. (Vide *Schultze's Archiv*, vol. vii. p. 267, 1871.)

Mr. Wenham, in the *Monthly Microscopical Journal* for June, 1872, describes "an improved reflex illuminator for the highest powers of the microscope."

Drs. Klein and Sanderson, in a preliminary notice on the anatomy of serous membranes, in the *Quarterly Journal of Microscopical Science* for April, 1872, state that the best way to demonstrate the lymphatic system of the diaphragm and neighboring parts is to keep a rabbit without food for sixteen or twenty hours; then to inject a small quantity of a five per cent. solution of Prussian blue into the abdominal cavity, and four or five hours later to kill the animal by bleeding or strangulation.

In the *American Naturalist* for April, 1872, H. L. Smith gives a method to make a frog motionless and apparently unconscious for many hours. All that is necessary is to plunge the frog into water about as hot as the hand can comfortably bear—about 120°—and to keep it there until it becomes rigid. The abdomen may be opened, the mesentery drawn out, and the circulation studied for a long time.

For putting up preparations, glycerine is not altogether satisfactory. Max Schultze, in his *Archiv* (vol. vii. p. 180, 1871), says that it makes certain parts too transparent, and, by uniting with fat, makes alterations in refraction, besides turning black when it comes into contact with hyperosmic acid. He recommends very strongly a concentrated solution of acetate of potash, to be used in the same manner as glycerine.

Luys, in *Rolin's Journal de l'Anat. et de la Phys.* for March and April, 1872, gives a method of completely removing chromic acid from specimens which have been hardened in it. It is to put the section between two pieces of thin glass, and, thus protected, to immerse it in a concentrated solution of caustic soda for a few minutes, during which the tissues will swell and become transparent. It is then put into a mixture of two parts of hydrochloric acid and one of water, which causes the tissues again to contract. After five minutes' immersion the specimen is transferred to water, which is changed daily for two or three days. The section will then have re-gained its original color, and may be stained if desired. Luys has apparently used this method chiefly with sections of the nervous centres.

Rindfleisch, in *Schultze's Archiv.* (vol. viii. heft 3), describes a method for isolating the nerve fibres and ganglion cells of the brain, which gives beautiful results. Macerate a small piece of the cortical substance for ten or fourteen days in a 10 per cent. solution of hyperosmic acid, and then keep it for a week or so in glycerine. The specimen may then be easily broken up into small bundles of fibres. One is selected and put with a drop of glycerine under a covering glass into a sort of cell. The glass is then repeatedly tapped lightly, and the motion of the fluid breaks the specimen into the finest elements.

Great as have been the results obtained by the use of chloride of gold, it appears that still more is to be expected from it. Dr. Klein, in the *Monthly Microscopical Journal* for April, 1872, figures the results he has obtained in the corneæ of rabbits and guinea pigs by using it in a new manner. The cornea is laid in a one-half per cent. solution of the chloride; if from a rabbit, it remains there for an hour and a half to two hours, if from a guinea pig, from an hour to an hour and a quarter. The specimen is then washed and exposed to the light in distilled water (to be occasionally changed) for twenty-four or thirty-six hours. It is then left for two or three days in a mixture of one part of glycerine and two of distilled water. A very delicate brush should be gently passed over the anterior surface to remove any remains of the precipitate, and sections should be made with a sharp razor. By this method the very smallest nerves are brought into view.

Dr. Arnold, in the *Philadelphia Medical Times*, July 1st, 1872, states that the results obtained by hæmatoxylin as a staining agent are much more satisfactory than those by carmine. An abstract of the article will be found in the number of this JOURNAL for August 8th ult.

PHILOSOPHICAL ANATOMY.

Two questions belonging to this department of anatomy have of late excited considerable discussion, namely, the nature of the skull and the relations of limbs to each other; these two questions are really but parts of a third, that of the general plan of the vertebrate skeleton. There can be no question in the mind of any one that the right and left halves of the body are symmetrical, and that the shoulder girdle, upper arm, forearm, wrist and hand have respectively a certain correspondence to the pelvic girdle, thigh, leg, ankle and foot. There is, however, great doubt in what manner the arm and leg are to be compared; whether the latter is merely a repetition of the former, facing in the same way, or whether we are to admit a symmetry between the anterior and posterior parts of the body, and to consider the legs opposed to the arms in the same way that the latter are opposed to each other. The chief upholders of the latter view are Profs. Wyman and Wilder, and, with some modifications, Foltz, of Lyons; the former view, with some differences of detail, is more generally accepted.

Prof. Wyman, in the *Proceedings of the Boston Society of Natural History* (vol. xi.), gives as reasons for his belief in antero-posterior symmetry, several facts to be learned from the study of the embryo at its earliest stages. Among these we may mention that the growth is from a central point forward and backward, that the primitive groove of the nervous axis in its earliest stages is nearly symmetrically enlarged at either end, and that the process of formation and ossification of the spinal column begins at the middle and extends toward the ends. To compare the limbs according to this view, the body must be suspended horizontally, with the limbs hanging downward, the hand being supinated and the fingers pointing backward. From this point of view we find the radius homologous to the fibula, the ulna to the tibia and the thumb to the little toe. Foltz thinks that the thumb represents the fourth and fifth toes, and that the great toe equals the ring and little fingers.

According to the theories generally accepted in Europe, the tibia corresponds to the radius, the fibula to the ulna and the great toe to the thumb. The reader is referred to the works of Flower and Gegen auer, and to a good article on Comparative and Homological Anatomy by Macalister, in the *Journal of the Royal Dublin Society*, 1872.

Prof Burt G. Wilder begins, in the *Proceedings of the Boston Society of Natural History*, 1871, an article on Intermembral Homologies, evidently the result of great labor, in which he proposes to strengthen whatever may be weak in Prof. Wyman's theory, and incidentally to revolutionize the nomenclature of the subject. That part which has appeared contains an historical sketch of the question, a revision of the nomenclature of parts and of that of ideas. Thus, to begin with that of parts, arm and leg will hereafter be *armus* and *skelos*, attached respectively to the *omozone* and *ischizone*. The *armus* will consist of a *brachium, cubitum* and *manus*; the *skelos* of a *meros, crus* and *pes*; the thumb will be *pollex* and the great toe *primus*. We cannot look upon this as an improvement; we confess to preferring what Prof. Wilder calls "abominable terms compounded with 'fore.'" The common nomenclature of ideas, referring to this branch, is not satisfactory, for certain terms are used very loosely, and sometimes to express different ideas; but we find no help here. For "polar relation of back and belly" (Oken), "dorso-ventral polarity" (Dana), "vertical homology" (Mivart), &c., we are to have "pseudantitropy" (Wilder), which he defines as "the *apparently antitropic* relation between parts which are *telically opposed* to each other, but lie upon the *same* side of a structural plane." Part of the existing confusion is of Wilder's own making (as he indeed acknowledges), for he would hardly think it necessary to substitute "platetropy" for "bilateral symmetry" (Agassiz), and for "right and left symmetry" (Wyman), if he had not already enriched the vocabulary with "latitypy" and "latitropy," Dr. Coues contributing "lateritypy."

It appears to us that, if one of these ways of comparing limbs be correct, the other is entirely wrong; and, although he says nothing of it, that the doctrine of the vertebral character of the skull is absolutely necessary to the validity of Professor Wyman's theory. One would think that antero-posterior symmetry must exist in the spinal column as well as in the limbs; and as the tail undoubtedly consists of modified vertebræ that the head must be formed from the same elements. The researches of Rathke, Huxley and others have gone far to overthrow the vertebral theory of the skull. If not completely found wanting, it is at least in so critical a condition that the burden of proof is on the side of its defenders.

The study of transcendental anatomy is, we believe and hope, on the decline. The address of Mr. W. Kitchen Parker, President of the Royal Microscopical Society of London (*Monthly Microscopical, Journal*, March, 1872), is encouraging. We take this ground because, in spite of the valuable labors of several able observers, so much trash has been written by dreamers of various ability, from Oken downwards, as to make the study very unsatisfactory. Moreover, it leads to no certain results, as do embryology and comparative anatomy, but tends to encourage the vaguest theorizing. Among the most curious modern phantasies, we must mention a paper on the "Numeric Relations of the Vertebrate System," by Dr. T. G. Hilgard, read at the annual meeting of the American Association for the Advancement of Science. (See the publications of the Society. There is an abstract in the *American Naturalist*, September, 1871.) Dr. Hilgard begins by re-arranging the vertebrate cranium so as to make it consist of "five complete neural rib arches," and of "'extremities' or prehensile appendages." He then states that the same numeric law which pervades the entire vegetable kingdom re-occurs in the human fabric in a very marked manner. The number of radiating elements in a coil or whorl, or of whorls in a cycle, or in cycles generally speaking, as in pine cones and flower buds, &c., are the following:—1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, &c." The application of this to the human skeleton is shown as follows:—"Inclusive of the terminal (ossified or gristly) coccygeal element we have exactly thirty-four spinal vertebræ.

"Classifying nerves by their *work* or 'function,' we find

 3 pairs of cervical nerves (neck),
 5 pairs of bracchial *(sic)* nerves (arms),
 8 pairs of pedal nerves, composed of
  3 crural (lumbar) and 5 ischiadic
  (sacral) ones,
13 pairs of nerves to the rump,
 5 specific ones to the cranium;
—
34 in all; whereas the number of spinal vertebræ which enclose the spinal cord is exactly 21."* (The reader will observe the "cyclar" arrangement of the numbers.) As there are thirty-one pairs of spinal nerves and twelve (or at least nine) of

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* This statement is not quite correct for the adult and entirely wrong for the fœtus.

cranial ones, making forty-three or forty, in all, we are anxious to know what has become of the others; perhaps, as Dr. Hilgard classifies nerves by their "work," those which he does not mention are for ornament. There are several other entertaining points in the article, but we will confine ourselves to alluding to "the varying cyclar number of 'loose' ossicles, such as *carpals, tarsals, teeth*, &c."

The "Origin of the Vertebrate Skeleton" (*Annals and Magazine of Natural History*, April and July, 1872), by Mr. Harry G. Seely, though in a different style, shows the same excess of statements over evidence. One quotation will suffice. "All vertebrate animals are locomotive, and all fish and all immature amphibia live in water. These animals progress backward, though we usually name the motion forward; that is, each uses its tail to obtain a leverage by which it retreats, the animal's head necessarily going where the tail sends it."

ANOMALIES.

Formerly, but little attention was paid to this branch of anatomy except in regard to the variations of the bloodvessels or to remarkable peculiarities of the viscera, but, of late, those of the muscles have been studied with the greatest care. This has been done chiefly in England, Germany and Russia. In America, except in one or two cities, there is no approach to the number of subjects seen in the dissecting-rooms of Europe; but we think that more might have been made out of the material than there is evidence of. It may be said that most of these anomalies are of little or no practical value; but, as in the cases of variation in the deep femoral veins, presently to be noticed, the seeker is often rewarded with discoveries of importance. Considered as a science it is not of the same misty nature as the transcendental researches lately discussed, for the identity of certain abnormal arrangements in man and of the normal disposition in some animals is a fact and not a theory.

The two greatest collectors of facts are Wood, of London (*vide Proc. Roy. Soc. London*), and Gruber, of St. Petersburg (*vide Publications of the Acad., and various German Journals*). We mention only some of the latest contributions.

Osteology.—Dr. T. Hale Street, U. S. N., reports (*Amer. Jour. of Med. Sciences*, July, 1872) a case of two supernumerary ribs, one attached to each side of the seventh cervical vertebra. The specimen will be described more fully by Dr. W. W. Keen.

Myology.—In the same paper, Dr. Street describes a small tendon arising from the fascia binding down the *flexor sublim. dig.*, about two inches above the pisiform bone, joining and inserted in common with the *abduct. min. dig.* He also mentions a case occurring in both hands, of the tendon of the *flexor profund.* for the little finger being inserted to the radial side of that of the *sublimis* instead of piercing it.

Mr. J. B. Perrin writes a preliminary paper on the "Affinities and Evolutions of the Subclavian and Omohyoid Muscles" in the *Med. Times & Gazette* of April 27th, 1872. He gives instances of entire and of partial duplication of the omohyoid, and reaches the conclusion that the present arrangement is merely transitional. He says, "Even the single average muscle evinces unmistakable signs of desertion from the scapula to the clavicle as a proximal nidus, and further of culminating into a more useful monogastric rather than an incomprehensible digastric one."

Pozzi, in *Robin's Jour. de l'Anat. et de la Phys.* for May and June, 1872, describes a very common variety of the *peroneus brevis*, in which a band goes forward to the proximal end of the first phalanx. This is the *peroneus quinti digiti* of Wood. It occurs, according to both observers, about once in seven cases. Pozzi shows that it may be considered an "anomaly by reversion," as the phalangeal tendon is constant in the anthropoid apes, and as among mammalia the metatarsal and the phalangeal tendons may cöexist, either being the larger, and as either may exist alone.

Mr. S. M. Bradley publishes in the *Journal of Anat. & Phys.* (May, 1872), an account of an abnormal muscle (normal in apes), the *abductor ossis metatars. quinti*, which arises from the under side of the *calcaneum*, and is inserted into the base of the metatarsal bone of the little toe. He reports at the same time several other interesting though more common anomalies; among them a *cleido-occipitalis*, a *depressor thyroideæ*, a *rectus sternalis*, etc.

The reporter read a paper before the *Boston Soc. of Med. Scie.*, April 30th, 1872, which appeared in this JOURNAL (June 27th, ult.), on a case of an accessory belly to the second dorsal interosseous muscle of the hand, which he considered as representing a part of Prof. Wood's *extensor brevis digit. manus.*

Vascular System.—Gruber, in the 24th vol. 4th heft of *Virchow's Archiv*, gives two long and laborious papers on the occasional *arteria thyroidea ima*, and on the variations of the *internal mammary* and *thyroid axis*. These papers contain apparently all that has been published about these vessels, together with the results of a large series of personal observations.

Dr. Street (*loc. cit.*) gives several arterial anomalies. The most interesting are of irregular division of the brachial artery. They are no exceptions to the rule, that in abnormal divisions of this vessel, the superficial arteries come from one branch and the deep from another. Foltz accounts for this by the duality of the organism in a lateral, an antero-posterior and a superio-inferior direction. According to him, what we call the normal brachial artery consists of the anterior and posterior brachials conjoined; hence, in high division we do not have a doubling of the vessel, but simply a resolution into its primitive parts. (*Vide Robin's Jour. de l'Anat. et de la Phys.*, May and June, 1872, for a review of this paper in the *Lyon Medical.*)

Gruber, in the *Bull. de l'Acad. des Scien. de St. Petersburg*, vol. 16, writes on the variations of the deep femoral vein, showing that it takes a comparatively superficial course in the back of the thigh sufficiently often to make its study of surgical importance.

Miscellaneous. — Gruber (*loc. cit., vol.* 15) reports two cases of supernumerary lobes in the right lung. In one case there were four lobes; in the other five. In each case a part, at least, of the anomaly appeared to be due to the irregular course of the *vena azigos*, which ran over the right lung, and opened into the right aspect of the *vena cava sup.*, just below the innominate veins.

Dr. M. Watson, of Edinburgh (*Journal Anat. & Phys.*, May, 1872), describes in detail an interesting case of anomalous course of the *thoracic duct*, which ultimately opened into the right internal jugular vein. In the same journal Mr. Galton reports the case of a young man in whose upper jaw the right canine tooth appeared through the gum, just above the first premolar. Two supernumerary teeth, of which one had been extracted, had appeared just behind the superior median incisors. Mr. Galton gives some extracts from the literature of the subject, and remarks: "It cannot, however, be overlooked that by far the majority of cases of supernumerary teeth occur in the upper jaw, and further, that no case, as far as I am aware, has been recorded in which they have been associated with teeth which have had no milk precursors, *i. e.*, true molars." This is quoted as showing the rarity of the following case, reported by Langer to the Society of Anthropology of Vienna. (*Vide Revue Scientif.*, April 13th, 1872.) A negro had five supernumerary teeth, namely an additional *true* molar in each side of each jaw, and one extra premolar in the lower jaw. This anomaly is apparently unique.

OSTEOLOGY.

"*Synopsis suturarum. et epiphysium*" is the title of a very thorough enumeration in Latin of all the epiphyses, and of all the places where two or more bones or, for the time, distinct parts of the same bone come together. *Auctore Kinberg* (*Publications of the Roy. Acad. of Stockholm*, 1870).

There is an interesting account of the condition of the skull in old age, by Sauvage, in the *Bull. de la Soc. de l'Anthropol. de Paris*, for June and July, 1870. The chemical changes are taken first. The author finds that the water is diminished. With advancing age the quantity of mineral matter becomes proportionally greater and that of organic matter less, although there is an increase in fatty substances. The loss in capacity and the gain in weight are very trifling. The greater depth of the vascular grooves is due to thickening of the bone, for a section shows the layers bending under the grooves, while the inner ones would be cut through were the grooves caused by wearing away at the bone. Thinness of the skull, from Pacchionian depressions, usually co-exists with deep grooves, and the depressions are usually more numerous and deeper on the left side. The obliteration of the sutures begins towards the age of forty-five. The coronal and lambdoidal follow the sagittal. In the coronal suture the obliteration begins in the middle, and is more perfect on the right side than on the left. In the lambdoidal the process begins on the right side and travels along the suture.

In the same number Dr. Le Courtois considers the morphological changes in the vault of the skull, according to the age and the cranial type. He has no doubt that from birth to adult age the parietal region undergoes a considerable diminution of convexity, and that during the same period the frontal and parietal protuberances become less and less prominent with even greater rapidity. He shows by a large number of observations that, contrary to the opinions of Welcker and Schaaffhausen, the skull at birth may be of any type, either very narrow or very broad.

Prof. Calori publishes a paper on the so-called Scafoid Cranium (Scafocephalus of Baer), in the *Mem. Acad. Scie.* of Bologna (2d Series, Vol 10, Fasicl. 3, 1871).

Dubreuil shows from sections made just above the middle of the fibula of an adult, of a child of five and a half, of a child at birth, and of a six months fœtus, that the size of the canals increases in direct ratio to the age, and that the number diminishes. His tables appear to show that the latter change takes place more rapidly than the former, so that the bone becomes less and less vascular. (*Vide Robin's Jour. de l' Anat. et de la Phys.*, Jan. and Feb., 1872.)

" Growth of the Human Body in Relation to Giants," by Carl Langer (*Memoirs Imp. Acad. Sciences of Vienna, Vol.* 31, 1872), is the title of a long and valuable paper, in which the proportions of the body and the laws of growth of its various parts at different ages are studied very carefully. He considers the proportions of children, of adults of medium size, of very tall men, and of giants, keeping the last two classes quite distinct. As it would be impossible to do justice to this paper without a great deal of space, we give only some of Prof. Langer's conclusions :

" Gigantic growth is merely a continuation of the normal development of the body ; but because some divisions of the body cease sooner to expand, and because others do not keep up with the long bones in rapidity of growth, in overgrowths certain discrepancies necessarily occur as well in the formation of certain bones as in the dimensions of certain divisions of the body, and occasionally not less in the proportions of the whole figure. It is in these discrepancies that lie the peculiarities of giants." As the excessive growth rarely begins before the tenth year and is usually completed by the twentieth, Langer would have this point of equal importance with those above mentioned to determine if any case of unusual growth is to be called gigantic.

The last number (*July and August,* 1872) of *Robin's Journal*, contains the first of what promises to be a valuable series of papers entitled " Anatomical Researches on the Normal Curves of the Spinal Column in Man and Animals, by Dr. Bouland." The present paper treats only of the normal antero-posterior curves in man. After giving several extracts from the works of celebrated anatomists, Dr. Bouland states the present belief to be as follows :—" 1st, That at birth the human spinal column presents no curves, if examined in a horizontal position ; 2d,—That up to the age of five or six years it presents only temporary curves or posterior curves, which disappear in the horizontal position ; 3d,—That the permanent curves, which are formed later, are, according to some, the results of various mechanical actions, while, according to others, they are the effects of the organization itself."

To investigate the matter, he took an equal number of subjects of both sexes, removed from each the head and limbs, the viscera and soft parts, so as to have merely a ligamentous skeleton of the trunk. This he imbedded in plaster of Paris, and, when it had become hard, divided it by an incision through the middle of the vertebræ and of the sternum. He arranged his specimens in four groups : the first of children at birth, the second of fifteen or sixteen months, the third of about three years, and the fourth of about five. At birth he finds the line of the spinous processes perfectly straight, but that of the bodies already curved. There is more or less of a cervical and dorsal curve in all the groups, but the lumbar curve is usually absent in the first two. The author proves by experiment that the ligaments have no share in forming the curves, which depend entirely on the difference in height between the anterior and the posterior surfaces of the bodies, (consisting of the central osseous nucleus and of the cartilaginous epiphyses), and of the intervertebral discs. As a rule, the curve in the back is caused chiefly by the bones, those of the neck and loins by the intervertebral cartilages. Dr. Bouland concludes that the cervical and dorsal curves depend on laws of organization, and not on mechanical causes arising from the upright position of the human body ; but that this has an effect on the lumbar curve, as this is not constant till the child has begun to walk.

A full account, by M. Rivière, of the fossil skeleton, which he discovered last March near Mentone, has, we believe, not yet appeared. We gather, however, from various sources, that the specimen has been moved to Paris, but not with such perfect success as could be wished, as the parts in contact with the ground were far gone ; that the skull is narrow but not prognathous, that the orbits are quadrilateral, and the tibiæ flattened.

(To be continued.)

American Pharmacists.—There are fourteen thousand pharmacists in the United States.

Reports of Medical Societies.

BOSTON SOCIETY FOR MEDICAL IMPROVEMENT.
F. B. GREENOUGH, M.D., SECRETARY.

JUNE 10th.—*Aneurism of the Middle Cerebral Artery.*—Dr. WELLINGTON reported the case and showed the specimen.

The patient, a policeman, 41 years old, had for two years complained of pain, and other uncomfortable feelings, in the head. He would sometimes speak of smelling disagreeable odors, which were not perceptible to others. Five weeks before his death he had a severe attack of headache, accompanied by double vision. This lasted three days, and gradually subsided.

The day before his death he suffered another severe attack of headache. He, however, in the evening started on his round as night-policeman, hoping the fresh air would ease his pain. He suffered greatly through the night, and returned home at 4 o'clock the next morning in great agony. He acted strangely and seemed bewildered, vomited and had two dejections. At 5, A.M., became insensible; breathing labored; pulse feeble; extremities cold and covered with a clammy sweat; pupils contracted. He died at 9.40, A.M.

At the autopsy, a large coagulum was found in the right anterior lobe of the brain, near the fissure of Sylvius. In the midst of this coagulum was an aneurism of the middle cerebral artery, an inch in length, two thirds of an inch in diameter, filled with firm, old coagula, and the rupture of which had caused the hæmorrhage.

The inner coat of the basilar and middle cerebral arteries was diseased, a whitish deposit being contained in their substance.

JUNE 10th.—*Aneurism of the Arteria Innominata, opening into the Trachea.*—Dr. J. B. S. JACKSON reported the case and showed the specimen.

The patient, a healthy looking sailor, 35 years of age, entered the U. S. Marine Hospital, under the care of Dr. A. B. Bancroft, April 12th, 1872, having given up his work two weeks previously, and on the 7th of May he died. Six months before admission, and after being wrecked off the coast of Nova Scotia, he was very greatly exposed, and at last obliged to swim two miles for his life. Previously he had been quite healthy, but a severe cold that he got at that time never entirely left him, and about three months before entrance into the hospital, he began to feel the indications of the fatal disease. These, which of course gradually increased, consisted of paroxysms of dyspnœa, with wheezing respiration, a violent, hoarse, racking cough, as in croup, an expectoration of several ounces of blood and mucus, distention of the veins of the neck, and profuse perspiration. A distinct murmur of a peculiar character was heard over the right clavicle, and subcrepitant râles were occasionally heard in both lungs. Right radial pulse much weaker than left, and sometimes it seemed to be quite wanting. Right carotid pulse not to be felt on entrance, but it was felt afterwards. No tumor could be felt in the neck. Voice not husky, not much cough, and not ringing, except during paroxysms. Breathing sometimes quite natural for some days, whilst he was under observation in the hospital, and during which time he had eight or ten of the paroxysms above described. The case was regarded by Dr. B. from the first as one of aneurism, and probably of the arteria innominata, and all that was done was to soothe the patient and await the result. His death was at last sudden, and accompanied by the raising of several pints of blood.

The aneurism, which was shown to the Society, and is to be placed in the Museum of the Medical College, was quite defined, larger than a hen's egg, and commenced abruptly two thirds of an inch from the aorta. The carotid and subclavian arteries arose freely from it, but as at their origin they were about half an inch apart, it was evident that they were involved in the aneurism. The sac contained a large amount of old coagula, and communicated freely with the trachea midway and upon the left side, by a defined, narrow, transverse fissure, about three-fourths of an inch in length, as seen on the inner surface of the trachea. The lungs were distended with blood, and distinct collapse.

JUNE 10th.—*A case of double ovariotomy. Death from peritonitis and malignant disease of the stomach and peritoneum.* Dr. JOHN HOMANS showed two cystic tumors of the ovaries, with other specimens, and reported the following case:—

Bridget M., 32 years old, unmarried, was admitted to the Carney Hospital June 8th, 1872. She states that she enjoyed good health till four months ago, when she noticed a soreness across the abdomen. Two months later two tumors, rather flat, about the size of lemons, perfectly movable, were noticed in the right iliac region. From this time till the present she has not been able to eat much or work, and has had more or less vomiting; the catamenia ceased about the time of the appearance of the tumors.

Now the right umbilical and iliac regions are occupied by a tumor, having the shape of a somewhat flattened sphere, hard, solid, and freely movable. This tumor projects downwards between the uterus and rectum. A large lobe, or a distinct tumor, can be felt on the left side of the median line and in the pelvis. In appearance the patient is pale, rather emaciated, vomits everything but milk and lime water. The neck of the uterus is nearly obliterated, its cavity is normal, it can be moved somewhat towards the left, but not towards the right, and not perceptibly upwards. The bladder is depressed, so that the course of the urethra is downwards. Of several gentlemen who examined the patient, three thought the tumor fibrocystic of the uterus, and one, malignant of the ovary. My diagnosis was tumor of right ovary, certainly, and probably, also, of left; the character of the tumor uncertain, but probably cancerous. The tube of the pneumatic aspirator gave exit to about ½ drachm of thick clear viscid fluid.

June 18.—Patient was etherized, and an incision, from about 2 inches above umbilicus to pubes was made. Two quarts of ascitic fluid ran out. Both ovaries were removed. There were no adhesions. The tumor of the right side weighed four pounds, and that of the left one and a half pounds. The pedicles of the tumors were the broad ligaments and round ligaments. Clamps could not be brought outside the abdominal wall without great traction on the uterus, and the pedicles were ligatured, one with silver wire and one with silk, and the ends brought out of the wound. There was a cancerous-looking nodule cut through in making the incision through the peritoneum, and several nodular tumors, the size of peas, were seen in the uterine wall. Deep and superficial sutures closed the wound. Pulse 120 after the operation. For about ten hours after the operation the patient was quite comfortable, then vomiting began and continued more or less till death, forty hours later.

At the autopsy made fourteen hours after death, by Dr. Fitz and myself, the wound was found well united by adhesions, particularly the peritoneal edges. A slight amount of blood among the muscular fibres. Intestines glued together and to the inner aspect of the wound by delicate false membrane. About a pint of reddish fluid in the abdominal cavity. Spleen, liver and kidneys presented no unusual appearance; in the stomach, about half way across the small curvature, was an irregularly rounded, thickened, ulcerated mass, as large as the palm of the hand, the edges elevated, rounded, somewhat conated, the central portion depressed and of a ragged, yellowish-white color. The great omentum was shrivelled into a dense mass, containing numerous small grey nodules; secondary nodules were found in the mesentery, especially near its intestinal attachment, over the kidneys, and in the recto-uterine space, in the anterior and posterior wall of the uterus. The left lateral ovarian ligament was attached to the sigmoid flexure by recent fibrinous adhesions. There were also old adhesions between the uterus and intestine at this point. There was a nodule, also, in the track of the wound, about half way between umbilicus and pubes. On section, the ovarian tumors were seen to be cystic. Dr. Fitz was kind enough to examine the various specimens microscopically, and reported that the ovarian tumors were cystic. The tumors of the stomach and peritoneum were sarcomatous. The disease of the stomach would formerly have been called cancerous; it is malignant, but in structure is sarcomatous and not carcinomatous.

Kerosene Oil in Chronic Rheumatism.—A New Zealand correspondent of the *Brit. Med. Journal* reports six cases of chronic rheumatism in which, even in the most aggravated instances, he found very marked relief to be obtained from the use of kerosene oil in drachm doses. The writer remarks in conclusion:—

"Although kerosene cannot be called a specific for rheumatism, I think that the cases here cited are quite sufficient to induce medical men to give it a fair trial. I am unable to find any unpleasant symptom caused by taking kerosene. The great objections with many people to taking it, are the unpleasant taste and smell. Some have taken it in water or milk; but I have lately heard a patient say he could take it best with salt; a pinch of salt being put into the mouth and allowed to dissolve, and the oil then swallowed, mixed with its own bulk of water. I am not aware of the remedy ever having been used internally; but I trust some medical men will be found who will give it a trial and record the results of his cases. Externally, it is of great use in burns; it seems to relieve pain more than any other application, especially if resorted to as soon as the injury is received."

Medical and Surgical Journal.

Boston: Thursday, September 5, 1872.

THE PUBLIC SCHOOLS.

The close of the summer vacation and the return of thousands of children to their wonted places in the school-room, suggests a brief inquiry whether the methods of discipline and study are consistent with sound hygienic and sanitary principles.

During the past season we have been called in many instances to attend upon children whose health in various ways had seriously suffered from the systems now pursued in the public schools. These cases embraced nervous affections, chorea, hysteria, nervous debility (so called), febrile excitement or depression, and other disturbances, resulting from overwork, or from tasks suited rather to adult than to youthful heads and minds, and from the methods by which the performance thereof is enforced and obtained. It may be that the tasks were not always too long; but when, for instance, a class of young girls is required to carry up, as an ordinary lesson in physiology, a written account of the circulation of the blood—a task which would puzzle most parents, not to say some doctors, to do intelligibly—one cannot help thinking that such a task cannot be too short. It should be, as the lazy boy wished of his Latin nouns, declined altogether.

But if the tasks are not generally too severe, they are exacted by what would seem very objectionable methods. The grand idea prevailing throughout the whole system, from infant to normal schools, is promotion. To be advanced (?) on a given day to the next higher class or division is the whip wherewith to lash the jaded victim over the rough road and through the tiresome ways. Not to be hindermost is the great bugbear urging on the aspirant, from the cradle onwards.

Who is responsible for this state of things? Go to the teacher, and we are informed that the evil is fully appreciated, but he can do nothing; the committee make the rules, and the teacher must carry them out at his peril. Go to the Committee—they are only public servants; the public demands a high mental cultivation, and free institutions are safe only in the hands of the educated. Our common schools are our glory, and they must not be allowed to fall behind the requisites of the times! The fault is in the children themselves, not in the system, that they break down. A committee can no more find healthy bodies for the pupils than they can supply them with brains. This, or its equivalent, is the usual result of any attempt to ameliorate the system.

In contrast, we know a school, where with strict order and discipline, the pupils are made to appreciate that what to-day they are learning is something in itself useful to them, something they will be happier for knowing after the troublesome work is accomplished, something which will help them to gain other knowledge to-morrow, something for themselves, no matter what others do or are—not something merely by which to get ahead of others, or to gain admission to a higher class—that will take care of itself. In this school (and it is not ideal or faultless) self-dependence, individuality, are promoted; personal peculiarities are studied and improved upon, but not subverted; and everything done with the view of making each pupil "self-contained" and efficient. One day in the week is entirely the pupil's, even to lying in bed till noon if breakfast is not cared for; and this day, of all others, is the one on which the teacher depends for discovering the real characters of the pupils, and for devising the best expedients for improving them. Every week the order of excellence in everything, studies, manners, and even dress and the mode of managing it, is announced to the full school, but no comments are made upon individuals.

Is it not possible to learn some wisdom from the management of such schools, and is it not time to devise some improvement on the high-pressure, competitive system generally in vogue, and to introduce some more sensible methods which shall promote more fully health of body while they develope mental vigor?

THE CITY PEST HOUSE.

The recent investigation in regard to the Smallpox Hospital in Boston has developed many facts of interest. It has been clearly proved that there has been no such neglect and abuse of patients there as the public had been led to think; and that the physicians in charge had done everything for the comfort and welfare of the patients which the limited conveniences at their command would permit. The insufficient accommodations and ill-appointed condition of the pest house were matters beyond their control. There is such a dread of this disease that it is very hard to procure good nurses, and much trouble was also had in getting workmen to make alterations and repairs upon the building. The investigation will result in good, however, if it leads to the immediate establishment of a suitable-sized and well-appointed pest house in some locality which is not too inaccessible. The necessity for such an establishment will be imperative before the inclement season comes to make transportation of cases of smallpox to the island hospitals impracticable, because dangerous to life. The summary order of the Board of Aldermen to remove patients to the harbor pest houses has solved the difficulty temporarily, but the relief will be operative only during the warm season. Even if smallpox should wholly retire from our midst, the city ought not to continue so ill prepared as it has been in former years for the occasional outbreak of the disease.

THE BLOOMINGDALE INSANE ASYLUM.

Public curiosity and, to some degree, doubtless, public indignation also, have been stimulated by the recent widely published charges against the management of this well-known institution near New York. If there is any truth in the statements concerning the detention of perfectly sane people on the presumption of insanity, or concerning abusive and improper treatment of patients there, it will come out in the investigation which has been already ordered. Meanwhile, popular judgment should be suspended. It is easy enough to arouse a prejudice against an institution about which so much mystery hangs as is inevitable and necessary with an insane asylum, because of the subtle nature of the mental disease treated there; but we believe sensible people, while awaiting the results of the investigation, will prefer to give the Asylum the benefit of every doubt and will accept the published statement of a responsible and respectable Board of Supervision instead of unconfirmed charges of discharged patients.

We are glad to observe that the expression of the public press is almost universally condemnatory of the exploits of a *Tribune* reporter, who thought it sharp to feign insanity and get himself lodged in Bloomingdale, for the purpose of surreptitiously obtaining facts. Such sneak-practice betokens neither great shrewdness nor a proper sense of honor, and the facts secured will not carry much weight with people of discernment, who can only look upon journalistic enterprise of this sort with the reprehension it deserves.

From Continental Journals.

Fatal Case of Peritonitis Following a Single Examination of the Vagina.—Mr. Gillette reports [*Gaz. des Hopitaux, No.* 57, 1872; *Allg. Med. Cent. Zeitung, July* 6, 1872] the following case of death from peritonitis, following a single vaginal examination, occurring in the case of a woman who had entered the hospital on account of a prolapse of the vagina. The patient was 40 years of age, and desired admission to the hospital, complaining of general weakness and a feeling of weight in the perineum, attributed to a prolapse of the uterus. She had given birth to one child ten years previous. For about a year a profuse hæmorrhage had occurred at the menstrual epoch. After allowing her to rest for three days, a vaginal examination was made, at which it was ascertained that a moderate prolapse of the uterus existed. There was no indication that any pain was inflicted at this examination, nor was any attempt made to introduce a speculum.

On the following day a severe peritonitis ensued, the symptoms being all well marked, and the woman died in 48 minutes after the commencement of the attack. At the autopsy there was found, in addition to the usual changes of peritonitis, a decided congestion of the left Fallopian tube and *ostium abdominale.* The left ovary was congested and enlarged, while between it and the tube was found a cavity filled with pus, and lined with a false membrane. A small sub-peritoneal abscess was also found. These lesions, then, of the ovary and the neighboring parts formed the point of origin for the peritonitis, while the mucous membrane of the uterus was merely the seat of a fungus-like softening. It has been observed by Nelaton that there not unfrequently exists some latent affection of the appendages of the uterus, the result generally of chronic inflammation, or the presence of some fungous or fibrous growth, and that the abdominal pains induced thereby leads the patient to seek surgical advice. In these cases the simplest examination of the vagina may be followed by severe and even fatal results. Recamier, moreover, reports in this connection, that two cases have come under his notice in which death ensued in 48 hours after some application had been made to the cavity of the womb.

These unfortunate instances should put the surgeon on his guard, when called upon to examine women, in case of whom there may be any suspicion of latent disease in the appendages of the uterus, as indicated by the presence of pain in the iliac region. It should also be borne in mind that the instrumental examinations of the womb, when accompanied by pain, may be followed by the most serious results. N.

INFLAMMATION OF THE KIDNEYS FOLLOWING THE EXTERNAL APPLICATION OF TAR. — Although the theory of metastasis in the treatment of skin diseases has been for a long time vigorously combatted by Prof. Hebra, there still lurks in the minds of certain writers of eminence, among whom may be mentioned Niemeyer, that where a morbid secretion of the skin is suddenly suppressed, some injurious effects may be produced upon the internal organs, owing, perhaps, to the additional labor they are called upon to perform in eliminating this morbid matter.

In the case here reported by Dr. Kirchhelm *(Berliner Klin. Wochenschrift, May 6th,* 1872*)*, very serious internal lesions were found to follow the cure of an eczematous eruption, but the unfortunate result is ascribed by that gentleman not to any metastasis of the eruption, but rather to the irritating effect upon the kidneys of the tar employed externally in the course of the treatment. This agent, when applied externally, is absorbed by the skin, and is eliminated by the kidneys, and Hebra is in the habit of warning students, that where an extensive portion of the body is smeared with any of the preparations of tar, pain in the kidneys and strangury may be produced. In no instance, however, does he appear to have met with any serious effects from this mode of treatment.

The patient of Dr. Kirchhelm was a robust young man, who entered the hospital on account of an infiltrated eczema of the lower extremities, of about a month's duration. By the aid of the usual baths and applications of soap, oleum jecoris, unguentum diachylon, etc., the eruption was soon brought back to a condition of eczema squamosa, after which a preparation of oil of cade and glycerine was applied on three consecutive days. On the fourth day indications of general constitutional disturbance were noticed, such as headache, loss of appetite, pain in voiding urine, etc., so that the application of the tar was at once suspended. The symptoms instead of abating, however, increased in severity. Severe pain was now experienced in the region of the kidneys; the urine was reduced in quantity and loaded with albumen; the skin assumed an œdematous appearance, while the serous infiltration of the lungs was so great as to occasion great dyspnœa. After a dangerous illness, lasting nearly three months, and complicated by an attack of pneumonia, the patient had the good fortune to recover, completely relieved, by the way, of his eczema. N.

NEURALGIA AND SCIATICA CURED BY TURPENTINE. TURPENTINE PEARLS.—Dr. Martinet, in a memoir presented by him to the Faculty of Medicine (*L'Union Medicale, June* 20, 1872), affirms that he has cured fifty-eight cases of neuralgia and sciatica out of seventy, by the use of essence of turpentine.

The great efficacy of this agent is not to be doubted in the above named affections; and what is remarkable, the benefit is almost always felt from the first doses. But this medicine has such a disagreeable odor, such a harsh and pungent taste, that it is quite impossible to take it pure. Dr. Clertan has contrived to enclose it in very thin and transparent gelatine, in the form of little globules of the size of peas, to which he has given the name of pearls. Dr. Clertan's "turpentine pearls" are as readily swallowed in a little water as pills. This agreeable form has made the essence of turpentine quite popular; and now there is not a physician (so says the announcement!) in France who does not resort to turpentine pearls, in the treatment of neuralgia and sciatica. Trousseau always prescribed turpentine in this form. C.

A Sure and Safe Method of Removing Foreign Bodies from the Ear.—The following method for removing foreign bodies from the external auditory meatus is suggested by Dr. Könenberg of Paris (*Berlin. Klin. Wochenschrift, No.* 9, *iv.* 10, 1872), and is applicable in those cases in which the ordinary methods of extraction, by means of instruments and the syringe, have proved unavailing. It consists in smearing the presenting surface of the foreign body with some adhesive fluid, which speedily hardens, by the aid of which a sort of handle may be fastened to the body, which may then be readily withdrawn, without causing any pressure upon the walls of the auditory canal. One of the best substances to be employed for this purpose is ordinary *glue*, which should be dissolved in cold water the day before the operation, and then thickened by means of the water-bath immediately before being used. The glue is applied by means of a small brush, the head of the patient being allowed to rest upon a pillow. When the foreign body is well smeared, the end of the wooden brush-handle may be inserted into the auditory meatus, and placed in contact with the body. At the end of three-quarters of an hour a firm union generally takes place, and the offending substance can be easily extracted. It is essential that the surface of the body upon which the glue is smeared should be perfectly dry. If the surface is made moist by the existence of some discharge, it may possibly be kept dry during the operation by the introduction of a current of warm air. If it is found impossible to keep it dry, then some other substance must be used to cause adhesion, such, for instance, as plaster of Paris or cement, which are hardened by the mixture of water. The writer is of the opinion that this so-called adhesive method can be applied in cases where the foreign body has penetrated the tympanum, provided the opening at the point of perforation is sufficiently large to admit of the introduction of a slender splinter of wood, to which the adhesive mixture has been applied, and by the aid of which the foreign substance may be laid hold of, and extracted. N.

Cancer of the Tonsils.—Mr. Alfred Poland, in the course of a paper in the April number of *The British and Foreign Medico-Chirurgical Review*, after alluding to the great rarity of cancer of the tonsils, and to its inevitably fatal termination, says that it may be either primary or secondary, or of the medullary or scirrhous form. In regard to the diagnosis of the disease, he adds that "in the early stage of both forms of the disease there is no distinguishing mark to guide us as to the nature of the disease. Enlargement of the tonsil is the only sign, and this does not arrest the attention of the patient, nor excite any suspicion in the mind of the surgeon, in consequence of the very frequent occurrence of subacute and chronic inflammation of the glands in a very great majority of persons. As the disease advances, the peculiar nature of the fatal disease begins to develop itself. When rapid, it steadily encroaches upon the fauces and pharynx, involves the lymphatic gland at the angle of the jaw, and afterwards the cervical glands, and soon destroys the patient. The scirrhous variety, on the contrary, may often fail to be recognized; but its slow progress, and its becoming ulcerated and excavated on its surfaces, render it less liable to be confounded with chronic hypertrophy and syphilitic ulceration. However, both these diseases have passed for cancer; and, on the other hand, cancer has been presumed when subsequent results have disproved the supposition. Excessive hardness, implication of the lymphatic glands, peculiar ulceration, fetid discharges, increasing growth, and peculiar cachexia, seem to be its characteristics."

In speaking of the treatment, Mr. Poland says that, whenever there is any reason to believe that there is a syphilitic taint, iodide of potassium should be given, and in any case it might be well to give the patient the benefit of the doubt. He refers approvingly to Dr. Cheever's operation in extirpating an encephaloid tonsil and an enlarged gland at the angle of the jaw, by an external incision in the neck. This operation appears to have been performed, however, by Langenbeck in 1865, and by Huetur in the same year. Caustics, and escharotics generally, only aggravate the pain, and are not recommended. The removal by the amygdalotome is generally out of the question. The écraseur may, however, be used, when the tumor has not attained a large size, and when the loop of the instrument can readily embrace the whole base of the tumor.—*Phil. Med. Times.*

Medical Miscellany.

The Medical Register for Boston and Vicinity.—We are requested by the Editor of the Register to state that it is in the hands of the printer, and that replies to unanswered circulars must be forwarded to him at once.

Appointments.—Dr. Thomas Dwight, Jr., of this city, has been appointed Professor of Anatomy in the Medical School of Maine at Brunswick.

Hampton E. Hill, M.D., of Augusta, has been elected Demonstrator of Anatomy in the Maine Medical School at Brunswick.

Dr. E. J. Tilt, of London, has recently been elected a Corresponding Fellow of the New York Academy of Medicine.

Dr. Brown-Sequard has resigned the chair of "Comparative and Experimental" Pathology in the Paris Faculty of Medicine, which he has temporarily filled since the death of Rayer.

Royal College of Surgeons.—Mr. Henry Hancock, Surgeon to the Charing Cross Hospital, was recently elected President of the Royal College of Surgeons of London, to fill the vacancy caused by the retirement of Mr. Geo. Busk, F.R.S. During the past year 349 gentlemen were admitted members of the College.

Medical Rank in the Navy.—The *Naval Register*, recently published, gives the following numbers and rank of the Medical Staff: 15 Medical Directors, with the relative rank of Captain; 15 Medical Directors, with the relative rank of Commander; 50 Surgeons, with the relative rank of Lieutenant-Commander; 25 Passed Assistant Surgeons, with the relative rank of Lieutenant; and 52 Assistant Surgeons, with the relative rank of Master.

Among the "volunteer officers" are 2 Acting Passed Assistant Surgeons and 11 Acting Assistant Surgeons.

Suppuration of one-half Lobe of Cerebrum.—Dr. Schwartzenthal relates briefly the case of a man 30 years of age, a day laborer, who had suffered, for over two weeks, in the commencement of May, in the year 1871, from pain in the head, with languor and want of appetite, followed by a severe fever of an entire month's continuance. After this, apparent convalescence ensued, and the patient resumed his ordinary occupation. About four weeks after he had left the hospital, whilst engaged in an altercation, he received a blow upon the head, and instantly expired. Examination after death showed that the posterior half of the right lobe of the cerebrum was reduced to a circumscribed accumulation of pus, while the anterior half of the lobe and the entire left cerebral hemisphere were of a doughy consistence. The cerebellum was to some extent softened. Up to the period of his death, the patient had continued at labor without apparently the least difficulty.—*Centralblatt f. d. Med. Wissenschaften*, 1871, No. 12, from the *Wien Med. Presse*, 1871.—*American Journal of the Medical Sciences.*

Ozokerit in Skin Disease.—H. S. Purdon, M.D. *(Dublin Quarterly Journal of Med. Science)*, recommends ozokerit, or vegetable wax, in the treatment of chronic affections of the skin, eczema of long standing, unaccompanied by much infiltration of the subcutaneous cellular tissue, tinea, scabies, and psoriasis. He states that it is as valuable as carbolic acid, oil of cade, or tar. Its action is regarded as that of a stimulant to the skin.—*Med. Record.*

Effect of Diet and Exercise on the Elimination of Nitrogen.—Parkes *(Proceedings of the Royal Society*, 1871, p. 349) finds that moderate exercise on a mixed diet has little influence on the excretion of nitrogen or on the temperature. It causes temporary quickening of the pulse; but this is succeeded by corresponding slowness, so that the mean pulse-rate during the day remains the same. The elimination of nitrogen is increased during the period of rest after severe exercise. The muscles can obtain the energy required for great exertion from fat and starch, though certain changes in their nitrogenous constituents also occur, which give rise to increased elimination of nitrogen after the work is over.—*Brit. Medical Journal.*

Deaths in fifteen Cities and Towns of Massachusetts, for the week ending August 24, 1872.

Cities and Towns.	*No. of Deaths.*
Boston	190
Charlestown	24
Worcester	36
Chelsea	8
Cambridge	26
Salem	12
Lawrence	11
Springfield	10
Lynn	21
Fitchburg	8
Taunton	7
Newburyport	2
Somerville	9
Haverhill	9
Holyoke	9
	382

Prevalent Diseases.

Cholera Infantum	124
Consumption	50
Dysentery & Diarrhœa	23
Typhoid Fever	18

There were four deaths from smallpox in Boston, and one in Chelsea.

George Derby, M.D.,
Secretary of State Board of Health.

Deaths in Boston for the week ending Saturday, August 31, 172. Males, 78; females, 94. Accident, 5—apoplexy, 2—inflammation of the bowels, 3—bronchitis, 1—inflammation of the brain, 1—congestion of the brain, 4—disease of the brain, 2—cyanosis, 1—cholera infantum, 54—consumption, 24—convulsions, 4—croup, 1—debility, 2—diarrhœa, 13—dropsy of brain, 5—dysentery, 3—scarlet fever, 1—typhoid fever, 3—fever, 1—disease of heart, 5—inflammation, 1—disease of the kidneys, 3—congestion of the lungs, 1—inflammation of the lungs, 4—marasmus, 11—old age, 1—paralysis, 1—pleurisy, 1—premature birth, 4—scrofula, 1—smallpox, 3—cerebro-spinal meningitis, 2—whooping cough, 1—unknown, 1.

Under 5 years of age, 111—between 5 and 20 years, 8—between 20 and 40 years, 27—between 40 and 60 years, 16—above 60 years, 10. Born in the United States, 140—Ireland, 21—other places, 11.

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Original Communications.

NORMAL DISTORTION OF THE PELVIS.

A Paper read before the Norfolk (Mass.) District Medical Society, July 10th, 1872.

By Edw. T. Williams, M.D. Harv.

It has always been taken for granted that the two sides of the human pelvis are equal and symmetrical, or, if varying slightly from perfect symmetry, that such distortion is merely accidental and takes place indifferently towards either side. I shall endeavor, in the following paper, to show reasons for questioning the truth of this assumption, and to demonstrate the existence in a majority of cases of a slight but appreciable distortion towards the left side. I shall also attempt to trace the influence of this deformity on the mechanism of head presentation in labor.

I hold in my hand a table of original measurements of 41 pelves—21 male and 20 female. It comprises all the pelves which I have thus far had the opportunity of examining, and not merely a class of selected cases chosen with a view to manifest the special point of investigation. Some of the specimens, as will be seen, show very slight deformity in any respect, while others show obvious distortion to the right. Taking the average, however, of the whole number of cases, the following general conclusions are made evident.

First. That the symphysis pubis, as a rule, is twisted over towards the left side. The mode of taking this measurement was as follows:—Set the pelvis on a table, its back against a wall; take a carpenter's square, or right-angled triangle used by draughtsmen, place it against the wall as near horizontally as possible, and describe a perpendicular through the middle point of the promontory towards the symphysis. The distance of the symphysis from this line gives the amount of deviation. The average amount of deviation on the whole number of cases was between $\frac{1}{7}$ and $\frac{1}{8}$ of an inch towards the left. The greatest deviation was $\frac{1}{2}$ an inch, the least $-\frac{1}{8}$; that is, $\frac{1}{8}$ of an inch towards the right side. The average deviation of the male pelves was $\frac{1}{7}$ of an inch; of the female $\frac{1}{8}$, a trifle less.

Second. The left acetabulum, or rather that portion of the ilio-pectineal line corresponding to it, measured from the middle of the sacral promontory, presents also an average leftward deviation of $\frac{1}{7}$ of an inch, the greatest being $\frac{3}{4}$ and the least $-\frac{1}{4}$. The average distortion was, as before, greater in the male pelves, viz., $\frac{1}{6}$, and in the female $\frac{1}{8}$ of an inch. This measurement shows clearly an excess of capacity in the left half of the pelvic cavity.

Third. The left oblique diameter, or that measured from the right sacro-iliac joint to the left pubic ramus, shows an average excess over the right of $\frac{1}{9}$ of an inch; the greatest being $\frac{5}{8}$, the smallest $-\frac{1}{4}$. The average of the male pelves was $\frac{1}{7}$, of the female $\frac{1}{12}$, the preponderance again being in favor of the male.

Lastly. The left anterior superior spinous process of the ilium, measured from the right sacro-iliac joint, is $\frac{1}{11}$ of an inch farther than the right anterior superior spinous process of the ilium from the left sacro-iliac joint. The greatest deviation was $\frac{5}{8}$ of an inch, the smallest $-\frac{1}{4}$; the average of the male pelves was $\frac{1}{16}$, of the female $\frac{1}{8}$ of an inch. The greatest distortion here being in the female pelves. This measurement shows an increased capacity of the cavity of the false pelvis on the left side.

One more peculiarity remains to be noticed. It is a twisting of the sacral and lumbar portions of the spinal column towards the right in a direction opposite to that of the ossa innominata, so that the lumbar convexity of the spine, instead of looking directly forwards, turns slightly towards the right ramus of the pubes. The sacrum is also slightly twisted on its own axis, as can be seen usually by the eye. I regret that I have not recorded particularly the proportion of cases in which this distortion was conspicuous, as my attention was not fully fixed upon it until after I had commenced my series of measurements. I am confident in saying, however, that it is quite generally present, and in its effects as well as its causes forming part and parcel with the deformities enumerated above.

To recapitulate. The symphysis pubis is twisted over towards the left side, while the upper portions of the sacrum and lumbar vertebræ are oppositely twisted towards the right; the left side of the cavity and brim are more hollowed out, lengthening the sacro-acetabular distance and left oblique diameter, causing the left ilio-pectineal line to describe a deeper curve than the right, and generally increasing the amount of space on the left side the median line. In the upper cavity, or false pelvis, the space is similarly increased by the greater flaring out of the left ilium and the bending over of the spinal column towards the right. It will be seen that the general features of the deformity resemble those of oblique distortion from disease described by obstetrical writers and exhibited in most pathological collections. The normal is a miniature of the abnormal.

The cause of this deformity, as it appeared to me, is the preferred use of the right leg in standing and walking. It is an effort of nature to throw the weight of the body into line with the right hip. It will be recollected that the three parts of the os innominatum, the ilium, ischium and pubis, unite together at the acetabulum, and that this union remains cartilaginous until the 16th or 17th year of age; it follows, therefore, that during the early period of life, whenever the weight of the body is thrown onto the right leg, a tendency arises to press in the right acetabulum, and with it the whole side of the pelvis, towards the sacrum; while the sacrum itself (whose bony union is still more tardy than that of the acetabulum, commencing about the 18th and ending about the 25th year), and with it the superincumbent lumbar portion of the spine, rotates on its axis and bends over towards the right, so as to bring the centre of gravity still more nearly over the right hip. This explanation is confirmed by the fact exhibited in the table that the sacro-acetabular measurements present a greater disparity than any of the other distances, viz., $\frac{1}{7}$ of an inch. The same is true in cases of diseased pelves.

This theory explains why the male pelves are more distorted than the female. If the bony union of the parts took place during childhood, when the habits and exercises of the two sexes are more nearly alike, we should expect to find a reasonable uniformity in the measurements. Puberty, however, stepping in and creating for the female an entirely new law of pelvic development, changing also the active, romping habits of girlhood for the more staid and dignified movements of woman, interrupts the action of those purely mechanical causes which in the young man continue in operation, with even augmented force, during the whole period of ossification. Hence the reason for that slight but unequivocal excess of deformity in the case of the male pelves.

It remains to consider the effect of lateral distortion on the position of the fœtus in utero. The theory may be briefly stated as follows:—The left side of the pelvic cavities, both false and true, being larger than the right, the vertex of the child's head as it gradually settles into position towards the close of pregnancy, naturally descends into the left side, while the face, rotating in that direction where it finds most room, turns towards the left sacro-iliac symphysis. This embraces from two-thirds to three fourths of all cases of head presentation.

If, however, the face in descending accidentally gets down on the wrong side the vertebral column, the regular rotation to the right is prevented and the vertex rotates, thus forming the second class, or vertex right presentations. In these cases, owing to the left oblique diameter being slightly longer than the right, the vertex is more apt to turn backwards towards the sacro-iliac junction. Many writers, following Naegelé, consider this position as the regular one, which I question. The confliction of authorities at any rate shows it to be less regular than the first.

Another cause of vertex right presentation may be right lateral distortion.

I desire to notice one more fact in corroboration of the preceding views. It is that the uterus itself in pregnancy is normally distorted towards the left, owing, as I conceive, to the distorted pelvis impressing its own shape upon it. It was first observed, I think, by Wigand, author of the Geburt des Menschen, that the left side of the abdomen in its lower portion was naturally more prominent in pregnant females than the right, forming a bulging or bag-like prominence above the left groin, the os uteri at the same time being drawn over towards the left side; the fundus inclines to the right. These statements are confirmed by German authorities, though not mentioned or only vaguely hinted at by our own writers. I believe no explanation of the phenomenon has been hitherto attempted.

To conclude. Although the figures given are far too few to establish satisfactorily the truth of the views suggested, I think they go far enough to show, as premised at the outset, the *probable* existence of left distortion in a majority of cases as a definite anatomical feature. As to the supposed influence of the deformity in causing the vertex to present by preference on the left side of the pelvis, it is offered simply as a theory. I regret sincerely the unavoidable causes which have prevented me from making the investigation more complete.

TABLE.

The following figures give the amount of deviation towards the left in fractions of an inch. The minus sign indicates deviation towards the right. The lines of measurement made use of are explained in the text.

MALES.

	Symphysis pubis.	Acetabulum.	Oblique Diameter.	Ant. sup. sp. of ilium.
1	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{1}{4}$	$\frac{1}{2}$
2	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{2}$
3	$\frac{1}{8}$	$\frac{3}{8}$	0	$\frac{1}{4}$
4	$\frac{1}{8}$	0	0	0
5	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{8}$	$\frac{1}{4}$
6	0	$-\frac{1}{8}$	$\frac{1}{8}$	0
7	0	$\frac{1}{4}$	$\frac{1}{4}$	0
8	$\frac{1}{8}$	$\frac{3}{8}$	$\frac{1}{8}$	0
9	0	0	$\frac{1}{4}$	$-\frac{1}{4}$
10	0	0	0	$-\frac{1}{8}$
11	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	0
12	$\frac{1}{8}$	0	$\frac{1}{4}$	$\frac{1}{8}$
13	0	$\frac{1}{8}$	$\frac{1}{8}$	0
14	$\frac{3}{8}$	$\frac{1}{4}$	0	$-\frac{1}{8}$
15	0	$-\frac{1}{8}$	$-\frac{1}{8}$	0
16	0	0	0	0
17	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{1}{4}$	0
18	$\frac{1}{8}$	$\frac{1}{2}$	$-\frac{1}{4}$	$\frac{1}{8}$
19	$\frac{1}{8}$	0	$\frac{1}{8}$	0
20	0	0	$\frac{1}{8}$	0
21	$\frac{1}{2}$	0	$\frac{1}{2}$	0
Average.	$\frac{1}{7}$	$\frac{1}{6}$	$\frac{1}{7}$	$\frac{1}{16}$

FEMALES.

	Symphysis pubis.	Acetabulum.	Oblique diameter.	Ant. sup. sp. of ilium.
1	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{1}{4}$	$\frac{1}{4}$
2	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$
3	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{8}$	$\frac{1}{4}$
4	0	$-\frac{1}{4}$	$-\frac{1}{4}$	$-\frac{1}{4}$
5	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$
6	$\frac{1}{8}$	0	0	$\frac{1}{8}$
7	$\frac{1}{4}$	$\frac{1}{8}$	0	0
8	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	0
9	0	$-\frac{1}{8}$	$-\frac{1}{8}$	$-\frac{1}{8}$
10	$-\frac{1}{8}$	$-\frac{1}{4}$	$-\frac{1}{4}$	$-\frac{1}{8}$
11	$\frac{1}{4}$	$\frac{3}{4}$	$\frac{5}{8}$	$\frac{5}{8}$
12	0	0	$\frac{1}{4}$	$-\frac{1}{8}$
13	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{1}{4}$
14	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{4}$
15	0	$-\frac{1}{4}$	0	0
16	$-\frac{1}{8}$	0	$-\frac{1}{4}$	$-\frac{1}{8}$
17	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{8}$	$\frac{1}{4}$
18	$\frac{3}{8}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{2}$
19	0	$\frac{1}{4}$	$-\frac{1}{8}$	$\frac{3}{8}$
20	0	$\frac{1}{4}$	0	$\frac{1}{8}$
Average.	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{12}$	$\frac{1}{8}$
General average.	$\frac{1}{7}$	$\frac{1}{7}$	$\frac{1}{9}$	$\frac{1}{11}$

OBSERVATIONS UPON OVER-WORK AND STRAIN OF THE HEART.

By J. B. TREADWELL, M.D. Harv.

Read before the Massachusetts Medical Society, at the Annual Meeting, 1872.

(Concluded from page 160.)

Relative frequency of different Forms of Lesion.

IN every one of these 150 cases we satisfied ourselves that the heart had suffered sufficiently from structural and organic changes to produce a derangement of its mechanical functions. Of the pathology of these changes I shall speak further on; at present we have simply to consider their results as they presented themselves to our observation on an average of about eight years from the time that their presence first became apparent. The normal mechanism of the heart had suffered as follows:

Cases of mitral regurgitation,	51
" " " " with aortic obstruction,	32

Cases of mitral regurgitation, with aortic regurgitation,	20
Cases of mitral regurgitation, with aortal regurgitation and obstruction,	14
Cases of aortic regurgitation,	11
" " " obstruction,	7
" " tricuspid regurgitation,	4
" " aortic obstruction and regurgitation,	3
Cases of mitral regurgitation, with tricuspid regurgitation,	2
Cases of double mitral and double aortic,	2
Cases of double mitral,	2

I wish here to remark that in every one of the above cases in which mitral trouble is not mentioned as being present, there was more or less *systolic roughness* at the mitral orifice; and in many of them a very decided approach to a well-marked murmur—sufficient at least to show that some structural change had taken place at this orifice. Of course we make no claim to perfection or absolute accuracy of diagnosis in many cases, but at the same time we have felt that in each of the 150 cases above detailed we had sufficient evidence to enable us to arrive at a correct diagnosis in respect to the particular lesion or lesions in every case. These different lesions existed in various degrees of severity in the different cases, but in all were unmistakably present as above recorded.

The general condition of the men was also, of course, very varied, and dependent to some extent, though by no means wholly so, upon the severity of the cardiac lesions. Many of them are able to perform light manual labor to a certain extent; none to do any heavy work whatever, while some, and by no means a few, became almost breathless upon any bodily exertion whatever.

There is one condition or sympton which, in the extreme degree in which it presents itself, is almost peculiar to hearts of this kind. I refer to a most pronounced, universal and distressing irritability of the organ. Such a heart seems to have been deprived of all governing power, and upon the slightest provocation becomes tumultuous and irregular in its action, and is consequently the source and seat of the most positive and relentless annoyance and distress to its possessor.

Mr. Myers alludes to this condition, and says that it is particularly common among very young soldiers, and also states that in connection with it he has always found the sphygmograph to indicate dicrotism, more or less marked. He further says that Marey and Naumann consider that this dicrotism is, in a measure, due to the recoil of the blood against the closed aortic valves. It has been supposed that this irritability is due to hypertrophy, but this supposition seems to me to be at variance with the results of every-day observation. An hypertrophied heart, independently of other lesions, is not necessarily or even frequently an irritable one; indeed I should say that this would be very seldom the case, unless there was obstructive disease to account for the hypertrophy, which those who maintain the existence of the latter deny. While hypertrophy of muscular tissue does not increase its irritability to any extent, a weakened condition does so increase it to a very great degree. Particularly is this the case in respect to the involuntary muscular tissue. A strong muscle is, as it were—if I may be allowed the expression—self-reliant, self-sufficient, and consequently self-controlled, and being called upon to perform certain work, does it easily, steadily, and quietly, without violent or spasmodic effort, simply because it is sufficiently powerful to overcome the resistance opposed to it; while a weak muscle, being insufficient in power to meet the demands made upon it, immediately becomes rapid, irregular and spasmodic in its action, simply because it is weak and incompetent to overcome the force opposing it. The slow, regular and labored but certain and decisive beat of an hypertrophied heart, and the quick, spasmodic, irregular and inefficient action of that of the class under consideration, are two very different things. In the latter there is no hypertrophy proper, and very seldom any of a compensatory character. These cases differ from those of hypertrophy in nearly every symptom, physical and rational. The tones of the heart, its beat, sounds, rhythm and impulse are distinctly different from those of an hypertrophied heart, as is also the pulse and the general condition of the patient. If these hearts were hypertrophied simply from over-exercise in consequence of increased obstruction in the circulation—systemic and pulmonic—we should expect to find the hypertrophy uniform, the sounds those of a strong heart rather than those of a weak one, and absence of valvular lesions or mechanical disturbance; and we should also expect the hypertrophy to diminish upon the cessation of the exciting cause, in the same manner as any muscle, enlarged from extra work, resumes its former bulk upon being relieved from such extra work. Not one, however, of these conditions, obtains in these cases.

Every symptom, early and late, is indicative of weakness. My opinion, in regard to the cause of this irritability, founded long since, and I am glad to find the same opinion entertained by Mr. Myers, whose book I had not seen until a day or two since, is that it is due to a certain debility of the heart, accompanied by, and the cause of dilatation of its cavities, with none or very little compensatory hypertrophy. I am of the opinion that there is always dilatation in hearts of this class, and that it is the result of over-work of the organ already weakened and debilitated from various causes, and that compensatory hypertrophy is seldom present, even in cases in which aortic obstruction has supervened. But to this I shall presently allude again.

Vertigo is a very prominent, constant and oftentimes distressing symptom, in some forms at least of this group of heart diseases. It is present to a greater or less degree in almost every case, but in what particular form, if any one, more than others, of the local structural changes, I am not yet fully satisfied.

More than a score of cases have come to our observation in which men have been pensioned for alleged gun-shot wounds or other injuries of the head, in which there was not the slightest evidence of any such wound or other injury sufficient to cause any head symptoms. The man is disabled, and rightly attributes his disability to service, and in the absence of any knowledge of its real nature and with this too well realized and almost constant head symptom, he naturally looks to the head for its origin.

So obvious is it that he is disabled from some cause, that if he has had the merest scratch of the scalp, or if a cicatrix, no matter how small or how problematical its origin, can be found, and in some cases if not, he is pensioned for "wound" or "injury" of the head, and the heart, the real and only seat of the disability, is overlooked. I mention this to show how common these forms of cardiac lesion are, and how little attention they have attracted, even from medical men.

I wish to refer incidentally to a particular form of these cardiac affections, comprising a class of cases which have almost universally been regarded as cases of sun-stroke, and to which much of the difference of opinion, and much of the discussion as to the proper treatment of sun-stroke has been due. A man making severe bodily exertion, his respiratory movements hampered perhaps by constricting clothing, belts, cross-belts, knapsack-straps, and perhaps exposed to the solar rays, but quite as likely not, and perhaps, as is sometimes the case, cut off from the free access of air, feels unconscious or semi-conscious, his pulse scarcely perceptible at the wrist, the heart fluttering and its sounds indistinct and weak, the lungs filled with mucous râles, and the extremities relaxed, without (so far as I have seen) any spasmodic movements, is said to have suffered from sun-stroke, or as some of the British writers put it, with apparently some conception of its real nature, "the cardiac variety of sun-stroke," when, in fact, it is no sun-stroke at all, in the commonly received acceptation of the term, but simply a giving out of the heart's action, and this not from deficient nervous supply to the heart, nor any abnormal condition of the brain primarily, but simply from primary and inherent debility of the muscular tissue of the heart, which has become so weak and dilated from severe and sudden or prolonged bodily exertion, or other causes, that it fails to respond to the nervous stimulus, the brain fails to receive an adequate supply of blood, and the man faints; or perhaps the heart, weak and distended, is incapable of forcing the blood along, the pulmonary circulation is impeded, and there is a general venous congestion, in which the brain partakes, and the man becomes more or less comatose. It would be needless, had I the time, to compare these symptoms with those of true sun-stroke; a thought is sufficient to make manifest the difference between the two conditions, and of course the treatment appropriate for the one is as far remote from that proper for the other as the widest range of therapeutics. The subsequent courses, sequelæ and results of these two conditions are none the less diverse; one man returns to consciousness readily, with a weak and probably permanently disabled heart, and sound brain; the other slowly, if at all, with a good chance for cerebral inflammation, but at all events with a permanently damaged brain. Had I space, I could, from personal observation, give scores of cases illustrative of these remarks, but I forbear. I have mentioned this form of cardiac over-strain as peculiarly illustrative in its sudden onset and rapid development, of precisely what occurs, pathologically speaking, more slowly in a larger number of cases subjected to similar etiological conditions, it being sufficiently apparent in these *acute* cases, so to speak, that the heart having been already over-taxed and its cavities more or less dilated, and being subjected to a sudden or somewhat prolonged and inordinate strain necessary to carry on the circulation, becomes still more distended, and finally, for the time being, incapable of efficient contraction.

I think there can be no doubt that the primary lesion, in this general class of heart affections, is ventricular dilatation, generally of the left side, in consequence of the greater amount of obstruction existing in the systemic circulation, from structural debility or weakness of the heart, and that from this primary lesion arise those of a secondary nature, which consist mostly of derangements of the valvular mechanism. Before considering these in detail, however, I shall refer briefly to the opinions of the writers before named, upon the general pathology of these cases.

Prof. Gairdner states that dilatation occurs frequently with auriculo-ventricular murmurs, without primary disease of the valves.—"A murmur caused by auriculo-ventricular regurgitation, mitral or tricuspid, is at least as frequent an indication of considerable dilatation of the corresponding ventricle as any other of its physical signs; *and further, in cases where such a murmur does not occur, or is not observed, auriculo-ventricular regurgitation is frequently present, and plays a most important part among the sequelæ of dilatation.*"

I have italicized the latter part of the paragraph in order to direct attention to the common, but I believe erroneous impression, that a genuine murmur must always accompany regurgitation; but such is not the fact. In a weak and debilitated heart a large part of the blood contained in the ventricle at any given time, may be forced backward during its systole, without any murmur proper at all; the retrograde current may be present, but the obstruction to its course may be so slight, or the contraction of the ventricle so weak, or both, that nothing like a murmur, in the common acceptation of the term, will be produced, the presence or absence of a murmur being dependent upon the size, and particularly the character, of the orifice, rather than upon the simple fact of regurgitation.

Dr. Bristowe refers to these dilated hearts as follows:—"A class of cases in which, with a history of cardiac disease, and with clinical proofs of mitral incompetence, the mitral valve and the orifice which it protects, are found to present a healthy appearance; and in which, without any obvious cause, a certain amount of dilatation and hypertrophy of the muscular tissue are found to co-exist."

Speaking of the post mortem appearances in these cases, Prof. Gairdner says:—"The state of the heart in most of these cases, has been nearly similar; there have been dilated ventricles, somewhat dilated orifices, stretched and enlarged valves, and not unfrequently a more or less thickened state of their edges, or of the tendinous cords. The degree and kind of the thickening has usually been such as to constitute, in my view, a wide distinction between these cases and those of primary valvular deformity, although I have often seen physicians of considerable experience assume the valvular thickening to be the cause of the hypertrophy, and thus invert, in my opinion, the whole pathology of the case."

Dr. Bristowe says that in all of his cases there was found "marked and considerable dilatation, with active or relative thinness of the ventricular wall."

The same writer, in referring to a certain case of this class, says:—"Mitral regurgitation had existed, and to this the symptoms and death were attributable, although no organic mischief was discoverable in the valve itself." And in another case, which proved fatal, and in which a mitral regurgitant murmur had existed for a long time before death, in seeking an explanation of its origin he says:—"It is probably not to be found in mere dilatation of the orifice itself; it still more certainly could not be explained by anything in the state of the valve. It appeared to me, therefore, that the condition of the ventricle itself, apart from that of the orifice, and of the valve, was sufficient to account for regurgitation through the auriculo-ventricular orifice."

Dr. Allbutt says,—"These cases have well-marked characters, unlike other forms of heart disease, or those arising from other causes — a natural and distinct group." And he further says,—"Mitral incompetency may and does result from over-distention of the left ventricle." And again,—"For my part I am satisfied that by sheer stretching of the chambers, the auriculo-ventricular valves become imperfect. Aortic incompetency may take place as a primary or as a consecutive event."

Dr. Allbutt places the structural changes in the following order,—"Firstly, dilatation of the right heart; secondly, dilatation of the left heart; thirdly, *in reason*,"—the italics are my own,—"if not in time, hypertrophy of the left ventricle, or of both ventricles," etc. It will be seen that Dr. Allbutt's knowledge of hypertrophy, in these cases, is merely a theoretical one—"*in reason.*"

Both he and Mr. Myers place considerable stress upon the presence of a certain amount of hypertrophy, both primary and consecutive, but the preponderance of evidence is decidedly against them; theoretically we might expect to find hypertrophy, but clinically we do not, except of a consecutive character, and then only to a slight degree, in a very few exceptional cases. Increased area of dullness is the only symptom in any way indicating its presence as a primary lesion, but this, as everyone knows, is equally indicative of simple dilatation, and to this condition, as the initial lesion, every other symptom present, rational and physical, points clearly and exclusively.

Nearly all of the writers quoted place mitral regurgitation as one of the earliest of the consecutive lesions, and this certainly coincides perfectly with the results of my observation. It is also, without any question, the consequence of the antecedent ventricular dilatation. Thus, Dr. Bristowe gives it as his opinion, that "the lateral displacement of the origin of the musculi papillares, in consequence of the rounded form which dilatation imparts to the heart, causes a disproportion between the size of the ventricular cavities and the length of the chordæ tendineæ, and prevents the closure of the auriculo-ventricular valves," or, in other words, the ventricular cavities being dilated, and their walls bulged, the chordæ tendineæ become too short to allow the perfect closure of the valves, holding them open, so to speak.

That this is the most frequent lesion, our own cases furnish abundant proof. In 51 of the 151 cases, this mitral incompetence was the only valvular lesion present, while it occurred in connection with other valvular lesions in 72 more, or 123 in all. In all of these cases it was well marked, and, as I stated before, it probably existed to some degree in nearly every one of the remaining 27 cases.

Tricuspid regurgitation is comparatively rare, in consequence, I think, of the vastly less amount of obstruction existing in the pulmonary circulation, when compared with the systemic.

It appears evident, then, I think, that the initial lesion, in these cases, is ventricular dilatation. Whence does it originate? I answer from an inherent debility of the muscular structure of the heart, which renders that organ incapable of performing any amount of extra labor, or of overcoming any unusual obstruction to the circulation, so that when such extra labor is thrown upon it, its muscular structure being already too weak and debilitated to acquire a condition of hypertrophy, gives way and relaxes still more, and ventricular dilatation results. Dr. Bristowe says that this form of dilatation is "the result of weakness of its (the heart's) muscular tissue." But debility of the heart, however excessive, will not be followed by distention, provided that the duties which that organ is called upon to perform are adjusted to its capabilities. This is shown in the course of exhausting diseases, as cancer and phthisis. "A small degree of feebleness, however, in a heart which is called upon to act beyond its strength, will soon succeed in producing greater or less dilatation."

This writer instances "too laborious occupation as one cause," and further remarks,—"Extreme feebleness and atrophy of involuntary muscular tissue may occur without any apparent structural change of the ultimate fibres, and there can be no doubt that the muscular tissue of the heart is thus affected. Unnatural thinning is virtual weakness, and if dilatation and thinning may have been produced by any temporary impairment of the ultimate tissues of the heart, these conditions are liable, not only to continue, but even to progress after the ultimate fibres have recovered their natural state."

He also remarks that the progressive character of these changes would be vastly more likely to continue and progress in the case of continued operation of the exciting cause than in cases where such cause had ceased to act.

Dr. Allbutt remarks that "whether the dilatation appears alone or with hypertrophy depends upon several conditions. If the heart is naturally a feeble one, or if it is not robust naturally, or from insufficient nourishment, or previous disease, or if the lungs have been hampered in their movements, dilatation will be found at the onset."

Here he virtually admits that in the class of cases which we are considering, dilatation is the primary lesion, and it is natural to suppose that if under favorable conditions the heart possesses sufficient inherent tone and power to recover itself, it will be by recovery from its dilated condition, through returning power and contractility of its muscular tissue, rather than by any considerable increase of tissue above its original amount; in other words, there is no reason for the muscular structure under these conditions to increase to a point beyond its original bulk, unless obstructive disease be present. The same conditions which would favor a restoration of the natural tone and power of the muscular tissue, would also, by this means, provide for the recovery of the organ from its dilated condition, without hypertrophy, a condition which, in the absence of obstruction, there is nothing to produce. But in the greater number of cases by far, the muscular tissue is so debilitated that the dilatation continues, and without compensatory hypertrophy, and, according to Dr. Allbutt, fibrous degeneration of the muscular tissue ultimately ensues. In such cases he finds "only indistinct striation, which in places may be so entirely absent that the tissue presents the appearance of common white fibre—such fibres cannot have a normal contracting power."

But, to quote no further, we have seen that in these cases we have hearts naturally weak, dilated from excessive bodily exertion, with mitral incompetence as a sequence, generally in persons less than 25 years of age, in whom the muscular tissues have not attained perfect maturity of vigor; and this accounts for the exceeding frequency of this class of affections among amateur oarsmen, nearly all of whom, after having had hard practice for a season or two, as far as I have had opportunity to observe, have suffered to some extent in this way.

To follow out the other morbid valvular manifestations, the result of the same or consecutive changes, I have not space. A moment's consideration will make evident the way in which each of them is produced. I wish simply to add that, as the result of my observation of many of these cases during the past eight or ten years, I am of the opinion that, for the most part, after they have reached a certain stage, these affections progress but slowly, providing that the conditions under which the person is placed be of a favorable character, with of course a total removal of those causes which in the first instance were productive of the trouble. If the surroundings or habits of the person be bad, and particularly if manual labor be pursued to any extent, the progress is more rapid, and of course the general condition of the person becomes worse in a corresponding degree. A few, with naturally stronger hearts, may partially recover, providing they be placed under favorable conditions, and that the lesions have not become very severe.

These affections are of every day occurrence, and these disjointed and incomplete observations are respectfully offered with a view, should they be considered worthy of the object, of inciting inquiry and observation in respect to this most common and interesting class of cardiac lesions.

Boston, June, 1872.

Progress in Medicine.

REPORT ON ANATOMY.

By Thomas Dwight, Jr., M.D. Harv.

(Concluded from page 169.)

Myology.

In the last number of the *Jour. Anat. and Phys.* (May, 1872), Prof. Humphry made a valuable contribution to anatomy, by a paper "on the disposition of muscles in vertebrate animals," and on June 17th he delivered the first of three lectures on "human myology," (reported in full in the *Brit. Med. Journ.*), at the Royal College of Surgeons. The paper begins as follows:—"The locomotory system of a vertebrate animal consists fundamentally of a successional series of alternating transverse skeletal and muscular planes, which extend nearly through the outer wall of the animal." The "skeletal" parts are not necessarily of bone or cartilage, but may be fibrous. A fish's tail is a typical example of this arrangement. Prof. Humphry then explains very clearly the series of changes by which the muscles and fasciæ attain the complicated forms which they present in higher animals. He divides the dorsal muscles, (which in higher animals include only the deeper layers), into two classes: 1st, those which connect corresponding parts, as *inter-transversales*, etc., and 2d, those which run obliquely, as from transverse to spinous processes, etc. In the lectures it is recommended to substitute for "the misleading term *sacro-lumbalis* the far better one *ilio-costalis*, used by German anatomists." This would be a great improvement. Let anyone compare the description of the *erector spinæ*, in the last edition of Quain's Anatomy, with that in Henle's *Muskellehre*, and he cannot but be struck with the greater simplicity of the latter.. According to Henle the muscle consists of the *ilio-costalis* in three parts, *lumborum*, *dorsi* and *cervicis*, respectively, and of the *longissimus dorsi*, which is continued as the *l. cervicis* and *l. capitis*. The confusing names *musculus accessorius*, *cervicalis ascendens*, *transversalis cervicis* and *trachelo-mastoid* are happily dispensed with. Prof. Humphry discusses the action of the human intercostal muscles, and concludes that they are all inspiratory, and that there is no antagonism between the different parts of the series. To return to general principles, the author finds that "the muscles of any division of a limb consist usually of three layers: *First*, and deepest, are the fibres of the segment itself, the intrinsic fibres; of these the proximal series are the bundles passing from the girdle to the first segment of the limb; *secondly*, the fibres derived from the distal segments, the extrinsic fibres; and *thirdly*, and most superficially, the fibres derived from the ventral muscle, the superficial ventro-appendicular fibres." The paper appears to us of great value, for by looking at muscles as arranged according to a general plan, it may be possible to give them an interest in which they are otherwise deficient.

Vascular System.

Prof. Braune describes the effect of moving the leg in certain ways on the blood in the femoral vein, in the *Proc. Roy. Soc. Sciences, Leipzig,* 1870, *heft* 3 *and* 4. If the leg be rotated outward and carried backward so as to extend it as much as possible, the vein falls together, but fills again and becomes prominent when the leg is brought forward and the thigh flexed on the body. This can be studied both on the living and dead subject. Braune thinks that the bones, muscles, fasciæ and veins in the leg, but particularly about Poupart's ligament, form a suction apparatus, which is further assisted, during life, by the contraction and relaxation of the muscles.

Lymphatic System.

Bruce, on Structure of Tendon; *Quart. Jour. Micro. Scie., April,* 1872. Boll, on the same, in *Schultze's Archiv, vol.* 7, *heft.* 4, and in *Centralblatt, No.* 47, 1871. Review of the question in *Quart. Journ. Micro. Sci., April,* 1872. Klein and Sanderson on the anatomy of serous membranes, in the *same No. of last.* Ranvier on histology and physiology of nerves, *Part 2d*, in *Archiv de Physiol. July,* 1872. Renaut, on the mucous tissue of umbilical cord, in the *same, for March,* 1872. Wedl, histological communications, in *Proc. Imp. Acad. Sci., Vienna, Oct.,* 1871. Obersteiner on some lymphatic spaces in the brain, in the *same for Jan.,* 1870. Wagstaffe, on the perivascular system of the brain, in *St. Thomas's Hospital Reports,* 1872. Ludwig and Schweigger-Seidel. The lymphatics of the fasciæ and tendons. *Leipzig,* 1872. The existence of passages for the lymph has been demonstrated almost universally throughout the body, but there is still much to be learned as to their nature and relations. There is a great diversity of opinion among observers and, no doubt, considerable diversity of arrangement in different parts. The structure of connective tissue is, evidently, a very important part of the question, and will be taken first.

Ranvier, published in the *Archiv. de Physiol.,* (1869), some observations on the tails of young rats, which lead him to believe in the existence of cylinders, formed of quadrilateral cells, rolled in such a manner as to bring the opposite sides of each cell into contact. This paper occasioned much discussion, and gave rise to many others. Dr. Bruce does not get the same results, but finds cells arranged in stripes, and folded over a fibrillar bundle running in the same direction. He finds more cells in young than in adult animals, and that in the former, the greater diameter of each cell is transverse. Boll sees a line running through the middle of continuous cells, which he calls the "elastic stripe." According to some it is a fold, and to others an optical delusion. Ranvier, in his latest paper on nerves, treats of the connective tissue, and thinks he has found lymph spaces, but without definite walls, between the fibrous elements which hold the nervous ones together. He says, "I have not yet succeeded in demonstrating the communication between the intra-fascicular connective tissue, and the lymphatic vessels, but it is very probable that this tissue is no exception. The presence of lymphatic cells, beside the flat cells, between the bundles of fibres indicates, indeed, that it is the seat of a lymphatic circulation; but, I repeat, the channels of circulation are still to find." Renaut finds no lymphatic canals, such as Köster claims to have injected, in the mucous tissue of the umbilical cord, but only spaces in the connective tissue, with occasional flattened cells in the walls. On the other hand Ludwig and Schweigger-Seidel claim regularly formed vessels for the fasciæ and tendons.

Many years ago Robin discovered spaces around the vessels of the brain, which have been further studied by His and others, some of whom have found communications between them and the lymphatics. The latest writer on the subject is Mr. Wagstaffe, who agrees with His in denying that there is any connection between the walls of the blood vessel and those of the space in which it lies. Roth and Obersteiner find radiating fibres crossing the space from one wall to the other. Wagstaffe has seen in these spaces corpuscles which very much resemble lymphatic ones, but which he prefers to consider modified epithelial cells. He finds "evidence of a direct communication between the perivascular canals in the substance of the organ and the subarachnoid spaces, and of the latter with the perivascular system and lymph spaces of the membranes." Obersteiner goes further, and demonstrates passages from the perivascular canals to the free spaces (held to be lymph spaces), around ganglion cells. In these latter he has found bodies similar to those seen by Wagstaffe, but which he does not hesitate to call lymph corpuscles, and we think correctly. He has been able to inject the spaces around the cells from beneath the pia mater. Similar spaces are to be seen around the cells and vessels of the spinal cord; His, however, denies that there is any communication between them. The reporter has lately studied these relations in the cord; though unable to find any unquestionable instance of such a connection, he has seen it very strongly suggested by offshoots from the pericellular spaces, which passed out of the plane of the section, when apparently about to open into the perivascular canals.

Wedl has lately written on the lymphatics of the spleen, of the capsule of the liver and of the heart. The most interesting point is that in no case has he been able to find, though using very fine injections, a free opening of a lymphatic into a serous cavity. In the spleen of a horse he followed some lymphatics, injected from the capsule, for one centimetre into the substance of that organ. He finds no lymphatics in the endocardium of man, horse or sheep, though they have been found in that of the calf. Dr. Klein and Prof. Sanderson give an excellent account of these vessels in the tendinous centre of the diaphragm. Those of each side are divided into two sets—an anterior and a posterior—which communicate freely with the corresponding systems of the opposite side. Those of the same side are joined together by longitudinal vessels giving off perpendicular ones, which open by *true mouths* into the abdominal cavity. These results are obtained by "natural" injections, which were described under the head of "Methods," while Wedl used only artificial ones; it is easy to see that the course of the fluid is not the same in the two cases, as in the former it passes from the serous cavity, and in the latter towards it, and it is possible that this may have something to do with Wedl's non-discovery of free openings (stomata.)

NERVOUS SYSTEM.

That part of Henle's Anatomy devoted to the central nervous system, and papers on the brain and spinal cord in *Stricker's Handbook*, by Meynert and Gerlack respectively, have appeared during the last two years. The last of these writers is the only one whose work can be called other than very hard to follow; it is clear and thorough. Meynert's paper is the most valuable, but unfortunately the most difficult. Before one can do justice to this paper he must not only have a pretty good knowledge of the subject, but also have mastered the style and manner of thought of the author. Difficult as are the details, the general diagrammatic sketch which he gives of the central nervous system is clear enough, and if kept in mind aids the student in the individual parts. The idea is that intelligence is situated in the gray matter of the convolutions, and that the impressions of the outer world are thrown upon this expanded layer of nervous elements, as the image of a landscape is thrown upon the retina; but the conducting nerves, instead of going directly to their destination like the rays of light, break the journey occasionally at certain masses of gray matter situated like railway stations at the junction of different lines. Meynert calls the conducting fibres the "projecting system," and divides the groups of cells into four categories:—1st, that of the convolutions of the cerebrum; 2d, gray masses situated in the substance of the brain; 3d, the gray matter along the central cavity of the brain and spinal cord; and, 4th, the cells of the cerebellum. Leaving the cerebellum out of the question, there are, then, three classes of "projecting fibres" connecting respectively, the first division of gray matter with the second, the second with the third, and, as nerves, the third with the different parts of the body. There is also the "associating system" of fibres, and possibly of nerve cells, by which different parts of the brain are brought into communication.

Medullated nerve fibres have long been known to present occasional constrictions, but these have never attracted much attention, it apparently being tacitly admitted that they were accidental appearances. Ranvier, in the *Archiv. de Physiol.*, March, 1872, gives the results of some observations on this subject, which, if confirmed, will be of great importance. He has examined nerves of the kind in question, treated with carmine, osmic acid and nitrate of silver, as well as in the fresh tissues, and finds that the constrictions are at regular intervals and nearer to one another in small than in large nerves. They are caused by the bending in of the sheath so as to reach the axis cylinder and entirely to divide the white substance of Schwann. A very important point is that there is one nucleus in the sheath between every two constrictions, and that in growing nerves the spaces regularly enlarge. Ranvier finds thickenings of the axis-cylinder in the neighborhood of the constrictions, which serve, as he thinks, to make the separation more perfect. The transverse lines which nitrate of silver shows in the axis cylinder appear best marked at the constricted points.

We find the following statement of Beale's view on nerves in the *Monthly Microscopical Journal*, April, 1872:—"With regard to the nerve fibrils themselves, many (I believe all) are unquestionably compound, consisting of still finer fibrils, which are arranged according to the same plan as the nerve fibres in the larger trunks."

The relations and modes of termination of minute nerves have of late been the subjects of an interesting discussion between Dr. Lionel Beale, the representative (perhaps we should say the founder) of the English school of histology, and Dr. Klein, formerly of Vienna, but now of London, who worthily represents the German observers. The former does not believe that nerves end in cells, much less in their nuclei, nor in contact with the contractile tissue of voluntary muscle, which fact Klein attributes chiefly to the imperfection of his method of preparation. Beale adheres to carmine as a coloring agent, and his results are certainly magnificent; but it does not appear to show such fine nerve fibres as the chloride of gold. The termination of the nerves in the cornea and their relations to the corneal corpuscles are two of the most mooted points bearing on this question. The nerves have been held by some to join the processes of the corpuscles, and by others to have no connection with them. Rollet (*On the Cornea, in Stricker's Handbook)* is of the latter opinion; and Klein, in his article on the distribution of non-medullated nerve fibres in the *Quarterly Journal of Microscopical Science* (October, 1871), describes a net-work of fine nerves on the corpuscles. Lipmann, in *Virchow's Archiv*, vol. xxxviii. p. 218, describes nerves going to the nuclei of the corpuscles, but no one else appears to have been fortunate enough to find them. The reporter, in a paper on the use of chloride of gold, published in this JOURNAL, May 27th, 1869, and re-printed in the *Monthly Microscopical Journal*, July 1869, stated that he had found but one undoubted case of union of a fibre and a process of a corneal corpuscle, and that then the nature of the fibre was not certain. Since then he has repeatedly studied the subject, and is convinced that such connections occasionally occur, but is not prepared to maintain that such is the universal, nor even the usual arrangement.

Dr. Klein gives drawings of a deep and a superficial intra-epithelial nervous network in the cornea in the *Month. Micro. Journ., April*, 1872.

For the literature, *vide* most of the English microscopical journals, for this year, and for some account of the discussion, the *September number* of the *Amer. Naturalist.*

Rindfleisch describes in *Schultze's Archiv. Vol.* 8, *heft* 3, the termination of the nerves in the cortical substance of the brain. The axis-cylinder becomes naked, and, growing smaller, breaks up into a bundle of very minute fibrillæ, which at last appear to be mere strings of granules. The branched processes of the ganglion cells end in the same way.

VISCERA.

Kidney.—Two new valuable papers on this organ have lately appeared. The first by Dr. Seng, in the *Proc. Imp. Acad. Sci. Vienna, Oct.*, 1871, is a report of some very conclusive observations on the epithelium of the Malpighian corpuscles. It is held that these bodies are formed by a coil of capillaries pressing against the blind end of the convoluted uriniferous tubule till the latter is reflected like a sack over the former. If this be true there must, originally at least, be two layers of epithelium facing one another but yet continuous, owing to the folding of the wall of the tubule. As an illustration suppose that the end of the finger of a glove be pushed in for a short distance, the object pushing it will represent the blood vessel—the *glomerulus*—and the lining of the glove, reflected over, will correspond to the epithelium. Observers, however, have not been able to find the relations of the epithelium, as they ought to be, according to this view. Some did not find the cells on the glomerulus, and others, finding these, were still unable to trace the connection between the layers. Seng, being unable to demonstrate the latter point on the kidneys of adult men and animals, turned to the human fœtus of from four to nine months, and succeeded in showing the relations as we should expect to find them. The drawings, by Heitzmann, are admirable and convincing. The other work is an elaborate and beautifully illustrated paper "On the pelvis of the kidney in man and mammals," by Prof. Hyrtl, in the *Memoirs of the Vienna Acad. for* 1872.

It is based on the study of corrosion preparations of the kidneys, of all the orders of mammalia, (except Sirenia). We consider here only the part relating to human anatomy, though the other is, we think, decidedly the better. In spite of the great diversity of form, Hyrtl thinks that human kidneys may be divided into three classes. The *first* has no pelvis ; the ureter divides as it approaches the kidney into two branches, without any enlargement at the point of division. The *second* kind has a true pelvis, the ureter dividing with an enlargement at or within the *hilus*. The *third* kind has half a pelvis ; in this case the ureter divides unequally, one part enlarging sufficiently to form a pelvis, while the other does not. Hyrtl also divides the *calices* into greater and lesser, and the latter into those of the first and second class. It appears to us that the distinction between a pelvis and a calyx is quite arbitrary, and that the classification of the different kinds of kidneys is unnecessary. The author describes two cases of diverticula from the renal pelvis, and concludes with some remarks on the arteries.

Spleen. — The nature of the channels through which the arterial blood reaches the veins in this organ is still undecided. Wedl, in his "histological communications," *Proc. Acad. Vienna, Oct.*, 1871, expresses the opinion that, beside the capillary system, there are direct communications between small arteries and veins. He does not believe in the existence of vascular spaces without regular walls.

The nerves, bloodvessels and lymphatics of the mucous membrane of the larynx, by Dr. Boldyrew, in *Schultze's Archiv., Vol.* 7, *p.* 166. The author describes a nervous network, forming nearly regular figures, immediately below the subepithelial layer, and sending upward terminal fibres, to end in the areolar tissue, either with a small swelling or in a nucleated granular mass. He finds no ganglion cells, and is unable to determine whether any nerves end in the epithelial layer.

There are three layers of bloodvessels, except on the epiglottis. The deepest of these is of coarse vessels, forming a polygonal network, which communicates with the middle layer by vessels which run obliquely, while the middle is joined by perpendicular vessels to the very fine subepithelial network. These three layers are quite distinct. The author has seen offshoots from the deep lymphatic vessels run obliquely to the subepithelial layer of bloodvessels, and end there in cul de sacs.

A description of the nerves of the oral cavity will be found in the same volume, p. 238.

In the *Lancet* (April 13th, 1872), there is an abstract of an article from the *Centralblatt*, by Rindfleisch, on a well marked layer of muscular fibres in the lungs, forming sphincters where the bronchi join the infundibula, and sending both looped and circular fibres over the latter.

The organ of taste.—Dr. Von Ajtai, in *Schultze's Archiv., Vol.* 8, *heft* 3. A new form of papilla called *foliata* was described some time ago as present in the tongues of some animals, but the author of this paper is the first who has found any analogous structure in man. He describes transverse folds crossing the posterior two-thirds of the human tongue, and becoming less prominent as they approach the front part. In these he finds cells of the same kind as are found in the human *papillœ circumvallatœ* and in the *foliatœ* of the rabbit. He also mentions some peculiar forms of epithelial cells, which he has found in these elevations.

" Contributions to the knowledge of the glands in the walls of the intestine and particularly Brunner's glands " is the title of an exhaustive article, by Schwalbe, in *Schultze's Archiv., Vol.* 8, *heft* 1. It treats of the finest points in the structure and arrangements of the cells, the *membrana propria*, the lymph vessels, etc., in the greatest detail.

Friedinger discusses the question as to which cells in the pepsine glands contain the pepsine, in the *Proc. Acad., Vienna, Oct.*, 1871, and settles it in favor of the old " digestive " cells *(Labzellen)* against certain others lately discovered differing from the former in shape and in their behavior to coloring fluids.

Dr. Max Huss shows in his inaugural thesis, published in the *Journal of Jena, Vol.* 7, *heft.* 2, 1872, that, in mode of development, the human mammary glands are very different from those of the ruminant. This called out a valuable paper (in the same number), by Gegenbaur, on the development of the nipple in mammalia.

" Some remarks on the anatomy of the human placenta." *Journ. Anat. and Phys., May*, 1872. Dr. Hicks in this paper describes the appearances of several placentæ examined in situ, in which he usually found no blood between the villi. The author begins by stating that " The fact that blood has been found among the villi in placentæ after their expulsion from the uterus in labor, has given great weight to the theory of a placental sinus-system." He says little in the way of comment, concluding by the observation that the condition which he found "is a far more difficult thing to comprehend, if blood naturally be there, than to understand how it is so frequently there in the naturally expelled placenta, supposing blood be ordinarily absent.

The anatomy of the eye and ear is left to the reporters on those subjects.

Miscellaneous.

Histology of Synovial Membranes.—Dr. Albert, in the *Proc. Vienna Acad.*, (Oct. 1871), endeavors to show that the synovial membrane in a joint does not cover the interarticular ligaments any more than it does the cartilage, and further, that there is no epithelial lining to the joint. The drawings show appearances which are too wonderfully like epithelium to be anything else. The author admits the resemblance, but states that the appearances vary very much in different parts of the joint. We do not well see that this makes the existence of epithelium improbable, in at least some parts of the cavity. This article is well written, and an important contribution to the literature of the subject.

The Structure of the Cell-Nucleus has been studied by Dr. Eimer, who publishes his results in *Schultze's Archiv., Vol.* 8, *heft* 1. He found almost invariably in cells of various kinds that the clear space which often surrounds the nucleolus is bounded by a layer of granules, separating it from the darker outer part of the nucleus. When the nucleus does not present a clear space near the middle, it is still divided into two parts by this granular layer. When there are two nucleoli in one nucleus, this structure is to be found around each.

Analysis of the *gasses of the blood*, by Estor and St. Pierre, in *Robin's Journ., March and April*, 1872. The authors after comparing different apparatus and modes of procedure, show that by adding hot water to blood and boiling, more oxygen can be found than by boiling the blood alone, or by adding the hot water without boiling.

Pfluger's Archiv., Vol. 5, *heft* 2 *and* 3, 1872, contains a paper, by Dr. Treskin, on the chemical constituents of the testicle.

NOTE.—It is proposed that these Reports should appear semi-annually. Writers of anatomical papers will greatly aid the reporter by sending him copies addressed to this JOURNAL. T. D. JR.

Medical and Surgical Journal.

BOSTON: THURSDAY, SEPTEMBER 12, 1872.

THE HARVARD MEDICAL SCHOOL.

In the JOURNAL for August 15th we spoke of the success of the new plan of instruction in the Medical School of Harvard University and of the cordial reception it had met with from the profession and such students as had become acquainted with its working. At the same time, we stated that the number of students had materially diminished, but assured our readers that this would not "kill the school," and added "we know too well the material of which its officers are made up: and more than that we know the material of which the medical profession is made. The Faculty means work, the Medical Profession means work, and, though there are croakers everywhere, the medical profession will back the Faculty."

We have reason to believe that, in using this language, we gave the impression that there had been an unexpected loss of students and that pluck and determination were to take the place of that pecuniary support upon which medical schools generally depend. If any such impression were given, we wish farther to state that the diminution in numbers was less than was anticipated and that the pecuniary results were eminently satisfactory. The income from the smaller number of students exceeded the estimates of those who had advocated and inaugurated the change, and nearly equalled that derived from the largest number of students ever connected with the school under the old plan in any single year.

We may perhaps be asked how this is compatible with a deficit about which so much was said at the last meeting of the Massachusetts Medical Society. The explanation is simple. A large part of the so-called deficit was the result of the enlargement of the building, rendered necessary by the change in the plan of instruction and the more liberal consequent expenditure. To these must be added the cost of a lot of land purchased to secure the College against the erection of some structure which might prove very injurious.

The remainder represents a fraction of the amount appropriated for the payment of the salaries of the instructors. The latter were based upon the probable receipts of the school, which were intentionally exceeded, with the hope that the requisite amount would be made up from other sources. The actual deficit from this cause was not more than one-half of that which was expected.

We were, therefore, justified in speaking as we did of the present and prospective success of the new scheme, which meets with the approbation of all true students.

From British Journals.

Uses of Chloride of Ammonium. — Dr. Dwar *(Brit. Med. Jour.* July 27, 1872,) states that this article has not been employed internally as much as its usefulness would seem to indicate. It is a valuable diaphoretic and diuretic. It seems to have a special action on the serous membranes generally. He has found it of especial value in pleuritic effusions, particularly when their cause is of a subacute or chronic character.

In a case of hydrothorax, where the effusion was very abundant, absorption of the fluid rapidly took place under the use of the drug. Other similar cases are reported. It is necessary to give adults twenty or thirty grains every three or four hours. Its precise *modus operandi* has not been clearly ascertained. Although primarily not a stimulant, it may act on serous membranes by stimulating their power of absorption. Its diaphoretic action may account for its usefulness in muscular rheumatism, in which affection the author has employed it with much satisfaction. He has not found it of much use in lumbago or articular rheumatism. Some bitter infusion is the best vehicle for disguising its taste.

G.

Sleeping to Death.—The *British Medical Journal* (Aug. 10, 1872,) refers to the singular and always fatal lethargic disease *(lethargus)* occasionally observed to be prevalent among the negroes of West Africa.

Dr. T. H. Bailey, who has observed it there, but who is not able, more than others have been, to explain its pathology, describes it briefly as follows: It is one of the curiosities of medicine. As the name implies, the principal and, in fact, only symptom that presents itself is lethargy, and one case is essentially a stereotype of all. The patient, usually a male adult, is seized without any premonitory symptom, with a sensation of drowsiness, which continues rapidly to increase, in spite of all efforts to throw it off, until he sinks into a profound and seemingly natural sleep. This continues for about twenty-one days, when death takes place. Throughout the course of the disease, the patient preserves a quiet and peaceful countenance, may be easily aroused for a short time, will take nourishment, and generally answer a few questions in a perfectly rational manner. The pulse, respiration and temperature, remain normal throughout; the pupil is neither dilated nor contracted to any noticeable extent, and the urine and fæces are voided with comparative regularity. With the exception of the abnormal tendency to sleep, nothing exists to denote disease." Many careful *post-mortem* examinations have been made by competent men, but nothing of an abnormal character has been found. Dr. Smith, colonial surgeon at Freetown, says that every remedy that could possibly be of any avail had been used, without any apparent beneficial effect. They sleep on and glide into eternity, in spite of professional skill.

G.

Action of Alcohol.—In his Lectures on the Treatment of Fever, Dr. Lionel S. Beale gives the following summary of the local and general action of alcohol (*Med. Times and Gazette*, July 27, 1872) :—

1. " In external wounds and in internal diseases where alcohol acts beneficially, the good result is, in part at least, due to the alcohol checking the *increased action* already established.

" 2. Alcohol does not act as a food; it does not nourish tissues. It may diminish waste by altering the consistence and chemical properties of fluids and solids. It cuts short the life of rapidly growing bioplasm, or causes it to live more slowly, and thus tends to cause a diseased texture, in which vital changes are abnormally active, to return *to its normal and much less active condition.*

"3. In 'exhausting' diseases, alcohol seems to act partly by diminishing very rapidly the abnormally increased growth of bioplasm. The quantity required will depend upon the extent to which the changes alluded to have proceeded. In extreme cases, half an ounce of brandy, or even more, may be given for a time (in some cases even for several days) every half-hour; and there is reason to believe that in desperate cases life is sometimes saved by this treatment.

"*Practical Conclusions.*—Lastly, I shall venture to repeat here the conclusions I arrived at many years ago concerning the great value of the alcoholic treatment of low fevers and inflammations. Increased experience has afforded further confirmation of the correctness of the statements made in the paragraphs below. I do not, of course, refer to slight cases of fever, pneumonia, &c., in which no stimulant whatever may be required, but to *very severe cases of disease* only.

"1. In what appeared hopeless cases, as much brandy as the patient could be made to swallow (an ounce and a half to two ounces in an hour) has been given for several hours in succession, and then as much as thirty ounces a day for several days, not only without producing the slightest intoxication, vomiting or headache, but the treatment has been followed by recovery.

"2. I would adduce the fact that a man not accustomed to drink, when suffering from acute rheumatism, complicated with pericarditis with effusion, pneumonia at the base of one lung, and pleurisy on the opposite side, has taken twenty-four ounces of brandy a day for eleven days, the tongue being moist and the mind calm during the whole time. While under this treatment, inflammatory products were absorbed, and the general state of the patient much improved.

"4. I have been compelled to give a very weak child, weighing less than four stone, twelve ounces of brandy a day for ten days, while suffering from acute rheumatism, with pericarditis and effusion. This quantity did not produce the slightest tendency to intoxication, or exert other than a favorable effect upon the disease. The patient did not begin to improve until the quantity of brandy, gradually increased, had reached the amount stated.

"4. I would state that among the general conclusions I have reached, after carefully watching more than one hundred cases of acute disease treated with large quantities of stimulants, are the following: That intoxication is not produced; that delirium, if it has occurred, ceases, or is prevented from occurring at all in the course of the case; that headache is not occasioned; that the action of the skin, kidneys, and bowels goes on freely; that the tongue remains moist, or, if dry and brown, often becomes moist; that the pulse falls in frequency and increases in force; that respiration is not impeded, but that, where even one entire lung is hepatised, the distress of breathing is not increased, and it appears that the respiratory changes go on under the disadvantageous circumstances present as well as if no alcohol had been given.

"The conclusion from all this is, most certainly, that alcohol does not do harm in fevers and acute inflammations; that it does not produce intoxication in persons suffering from exhausting diseases, and that large quantities (from twelve to thirty ounces) may be given in cases which appear very unlikely to recover, and sometimes the patient will be saved. The conviction is forced upon the observer that, in desperate cases, these large quantities of alcohol are directly instrumental in saving life, not by *exciting or stimulating to increased action, but by moderating actions already excessive,* and at the same time by causing the heart to contract more vigorously, and so continue to drive the blood through the impeded capillaries." G.

DEATH FROM THE ADMINISTRATION OF CHLOROFORM.—We regret to record another death from the administration of chloroform, which took place at the Great Northern Hospital on Wednesday. The patient was a man 53 years of age, on whom Mr. Carr Jackson was about to perform the operation of lithotomy. The vapor was administered by Mr. George Eastes, the chloroformist of the hospital, who has had extensive experience in anæsthetics. Mr. Osman Vincent, Mr. Vernon and Mr. Bloxam, all experienced chloroformists, were present; but the efforts of all were unavailing in restoring the unfortunate man to consciousness.—*Brit. Med. Jour.*

UREA IN BILE.—Popp finds that urea is a constant constituent of bile. The bile of the pig seems to contain it in larger quantity than that of the ox.]

Medical Miscellany.

A "REGULAR" ADVERTISEMENT.—The Michigan State Medical Society, at its recent session, enacted the following :—

"*Resolved*, That the State Medical Society of Michigan hereby adopts as one of its standing rules, that all members of this Society are strictly prohibited from advertising in any way except to the following extent, viz. :—

"'JOHN DOE, M.D.,
"'PHYSICIAN AND SURGEON,
"'[Or, Oculist and Aurist, or other specialty,]
"'Office, No. —, ——— Street.'

"Anything more than this will subject the offender to the penalty of expulsion from the Society. All members who are recognized as specialists, and who advertise themselves in accordance with the preceding rules will not be permitted under such an advertisement to engage in general practice."

THE MICHIGAN MEDICAL SOCIETY admits female practitioners to its membership.

DR. SCHOEPPE, whose trial and conviction for murder two years ago brought him to the foot of the gallows, and caused much excitement at the time, has just had a second trial, and has been acquitted on the ground of insufficient evidence. The medical evidence at the first trial was especially faulty.

AT the recent graduation ceremonies at the close of the summer session of the University of Edinburgh, a bust of the late Prof. Syme was presented to the University.

HEALTH DEPARTMENT OF NEW YORK.—At a meeting of the Board of Health, held July 31st, the services of forty-three physicians, forming the Auxiliary Corps of Assistant Health Inspectors, were dispensed with, at the recommendation of the Acting City Sanitary Inspector—there being no further necessity for their services, as smallpox has been stamped out (!).

CRANIOTOMY UNDER DIFFICULTIES.—The Melbourne correspondent of the *Medical Times and Gazette* gives the details of a peculiar case :—A medical man named Jackson, residing in one of the thinly populated districts in the West, where a practitioner has to ride probably thirty or forty miles to see half-a-dozen patients, attended a case of midwifery in March last, and had to perform craniotomy. There was nothing remarkable in the case beyond the fact that the head had become impacted ; turning was not practicable, and the woman was rapidly becoming exhausted. But, being many miles from his residence, and having no instruments with him, he did the best he could with such instruments as he could extemporize. With a chisel, a gimlet, an auger, and a hook made out of a piece of telegraph-wire, he delivered the woman successfully, and she recovered without the least bad effect after. But two rival practitioners of base-minded proclivities actually set on the woman's husband to move the coroner to hold an inquest on the remains of the child, and so worked upon the prejudices of the people in the district that the jury returned a verdict of manslaughter against Mr. Jackson, and he has been committed for trial, notwithstanding the most favorable representations on the part of the medical society of which he is a member.—*N. Y. Med. Jour.*

A NEW MEDICAL BARONET..—It is announced in Dublin that Dr. William Stokes, Regius Professor of Physic in Trinity College, Dublin, and Physician to the Queen in Ireland, is about to receive a baronetcy. Dr. Stokes is the acknowledged head of the profession in Ireland.—*British Medical Journal.*

BOOKS RECEIVED.—The Principles and Practice of Surgery. By Frank Hastings Hamilton, A.M., M.D., LL.D., &c. Illustrated. New York: William Wood & Co. 1872. (From the Publishers.)—Lettsomian Lectures on Diseases of the Liver. By T. O. Habershon, M.D. Lond., F.R.C.P., &c. Philadelphia: Lindsay & Blakiston. (From the Publishers.)—On Winter Cough, Catarrh, Bronchitis, Emphysema, Asthma. A Course of Lectures by Horace Dobell, M.D. New Edition. Philadelphia: Lindsay & Blakiston. 1872. (From the Publishers.)

DIED,—In South Boston, 6th inst., Stephen Mighill, M.D., aged 51 years.

Deaths in seventeen Cities and Towns of Massachusetts, for the week ending August 31, 1872.

Cities and Towns.	*No. of Deaths.*
Boston	172
Charlestown	21
Worcester	30
Lowell	28
Milford	3
Chelsea	11
Cambridge	34
Salem	21
Lawrence	25
Springfield	14
Lynn	17
Fitchburg	5
Taunton	12
Newburyport	6
Somerville	7
Haverhill	11
Holyoke	9
	426

Prevalent Diseases.

Cholera Infantum	136
Consumption	53
Dysentery & Diarrhœa	26
Typhoid Fever	19

Three deaths from smallpox occurred in Boston.

GEORGE DERBY, M.D.,
Secretary of State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, September 7, 169. Males, 88; females, 81. Accident, 8 abscess, 2—apoplexy, 3—asthma, 2—inflammation of the bowels, 2—bronchitis, 2—inflammation of the brain, 2—disease of the brain, 4—burned, 1—cancer, 3—cerebro-spinal meningitis, 1—cholera infantum, 38—cholera morbus, 2—consumption, 27—convulsions, 2—croup, 2—debility, 4—diarrhœa, 8—dropsy, 1—dropsy of brain, 2—drowned, 1—dysentery, 2—epilepsy, 1—scarlet fever, 1—typhoid fever, 3—bilious fever, 1—gastritis, 2—disease of the heart, 1—infantile, 1—insanity, 1—disease of the kidneys, 1—disease of the liver, 2—congestion of the lungs, 1—inflammation of the lungs, 5—marasmus, 15—paralysis, 2—peritouitis, 1—puerperal disease, 2—scalded, 1—smallpox, 4—suicide, 1—tetanus, 1—teething, 1—unknown, 2.

Under 5 years of age, 87—between 5 and 20 years, 9—between 20 and 40 years, 34—between 40 and 60 years, 21—above 60 years, 18. Born in the United States, 121—Ireland, 28—other places, 20.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

New Series.] Thursday September, 19, 1872. [Vol. X.—No. 12.

Original Communications.

ELECTRICITY IN SURGERY.

By J. S. Copley Greene, M.D. Harv.

Besides the galvano-cautery introduced by Middeldorpf, and recently advocated by Voltolini, as a means of operating in the larynx and pharynx, as well as in the oral and nasal cavities and the external auditory canal,* there are two other methods of applying the galvanic current, especially in the treatment of tumors of various kinds. These are called the percutaneous method, and that by acupuncture. In the former case, as the name implies, the current must pass through the skin; in the latter it is conducted through it by means of needles. To the result of the former the name katalysis has been applied, while for the latter is reserved the name of electrolysis.

In the former method the current is applied by means of moist electrodes to the skin. Either both are applied over the tumor or only one, according to the size of the growth. In the latter case, that electrode which is not applied to the tumor is placed on any indifferent part in its vicinity. The object of this use of the constant current is to produce the removal of the tumor by absorption. The application may be either of a strong current, during a short time (five to twenty minutes), or of a weaker current for many hours, or even days, continuously. Inasmuch as under the electrodes, especially the negative one, vesication and sloughing of the skin may be produced by too long application to the same spot, it is necessary, when using a strong current, to change their points of contact frequently. In employing a weak current continuously, the same precaution is needful, though of course at proportionately longer intervals. No very satisfactory explanation of the action of the current thus applied has yet been given, but there are facts enough to show that both the proliferation of cells and reproduction of tissue, as well as absorption of serous exudation are facilitated by passing even a very weak galvanic current—as, for example, in the first case, through an indolent ulcer, and, in the latter, through a "housemaid's knee." Chvostek has thus obtained good results with indolent buboes, and experiments with "scrofulous" glands have been both numerous and satisfactory.

In contrast with the katalytic method is the electrolytic. Whereas the former requires batteries of moderate power, such as those composed of the silver-zinc elements of Smee (without a porous diaphragm), or the copper-zinc elements of Daniell and Siemens-Halske, both of which are provided with a diaphragm—the latter with a more perfect one than the former—or the now well-known carbon-zinc battery of Stöhrer, which is without a diaphragm; the latter has of late acquired much greater efficiency by the employment of batteries possessing a stronger chemically working power than those above named, as, for example, the platinized lead-zinc battery of Frommhold, or a carbon-zinc battery without a diaphragm, and filled with a mixture of sulphuric acid and a concentrated solution of bichromate of potassa, in the proportion of one part to fifteen.

The action of the galvanic current thus applied depends upon its well-known property of decomposing water through which it may be passed. If the electrodes be metallic needles, for the sake of readily penetrating and thus bringing them into intimate contact with the tissues to be destroyed, the water of the tissues becomes decomposed along the whole surface in contact with the needles, in the substance lying between them, and to a greater or less extent on either side of the line thus described, according to the quantity of the current employed. Moreover, if the needle forming the positive electrode be of zinc or steel, it enters into combination with the liberated oxygen, and if exposed for sufficient time to this action, so much of it as is buried in the tissues may even be completely oxydized and disappear. In consequence of this oxydation, the resulting slough is firmer and dryer (especially if the needle be zinc) than if a gold or platinum needle be used. Blood is coagulated by the current, and if the vessels which supply a tumor be reached by the needles, the resulting coagulum cuts off further nutrition from it. This coagulation is particularly effected by the positive pole, which has a dry slough-producing action, while the negative pole has a softening, liquefying one, so that a parallel may be drawn between the latter and the caustic alkalies, between the former and acids. Hence it is a cardinal object in the electrolytic treatment of a tumor to pay especial attention to the base, and by its destruction to isolate the diseased parts from the sound tissues.

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* Die Anwendung der Galvanokaustik im Innern des Kehlkopfes und Schlundkopfes sowie in der Mund und Nasenhöhle und den Ohren. Wien. 1872.

Hitherto we have spoken of a single needle as forming each electrode, but it is not only important to use a battery of sufficient power for the special case, but, since the action takes place only within a limited sphere, it is evident that thus a removal of the needles from part to part of the tumor would be necessary if it were larger than this sphere. This loss of time may be avoided by conducting a sufficiently powerful current from the two main conducting wires to a number of needles simultaneously. One of the simplest methods of arranging such a combination is to take an ordinary steel needle, through the eye of which a fine copper wire about a foot long is passed and twisted closely round the shaft. By means of a very thin strip of gutta percha, the needle from the point of attachment of the wire, and the latter itself up to an inch from its point, should be insulated. The gutta percha can be firmly glued to the wire by previously painting with chloroform the surface to be applied. By means of strong sérres fines, or soldering, as many as twelve such needles may be attached to each main wire, or this may itself be composed of a dozen fine copper wires twisted together into a cord, leaving the last twelve or eighteen inches of the strands free, and attaching a needle, as above described, to the end of each. The extreme distance at which the needles of such a combination are inserted from one another should not be more than a quarter of an inch. It is, however, of course necessary that the number and size of the needles should be adapted to each case, according to the size, shape, nature and location of the tumor. A single needle at one pole and a combination at the other; or an equal number at each pole, introduced from opposite sides, and interdigitating with one another; or a single large needle attached to one pole and introduced parallel with the long axis of an oblong tumor, and a combination connected with the other pole and inserted on the periphery; or a single needle at one pole, fixed, and a single one at the other, removed from time to time to different parts; or a single needle at one pole and a moist electrode at the other. Each of these arrangements, or others which will readily suggest themselves, may under different circumstances be found the most advantageous.

The mechanical arrangements requisite for the application of electrolysis being thus briefly described, I will add a condensed summary of the latest and most complete published statistics on this subject which have recently appeared.* After an introduction, in the course of which a very interesting case of a large aneurism of the right subclavian, successfully treated by means of the constant galvanic current, is related, and a dozen pages of general observations on batteries, electrodes, &c., there follows a series of forty cases treated by electrolysis, and comprising cases of vascular nævi, hæmorrhoids, lupus scrophulosus, condylomata, sarcoma and carcinoma.

Of the nævi, eleven cases are reported. Part of these were treated by gradual coagulation, the needles being isolated, except near the point, by a coat of varnish, in order to avoid injury to the integument; in the rest, needles not so protected were employed. In the former it was important, either because the nævus occupied a conspicuous position, or involved structures which would be deformed or injured by cicatrization. In the latter, a less conspicuous position of the growth rendered this precaution needless. Thus a nævus which measured one and a half by one and three quarters inches, situated on the right cheek and sending a process upwards into the lower eyelid of that side, was very gradually obliterated, by small parts at a time, in seven sittings. A single, positive zinc needle was introduced each time at the centre of the nævus and its point was carried thence subcutaneously into every part of the nævus while a moist electrode connected with the negative pole was placed on the skin near by. The eyelid retained its form perfectly, and only a small, slightly-depressed cicatrix remained on the cheek.

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* Die Elektrolyse in der Chirurgie. Klinische Studien von Franz Groh, Professor, &c. &c. Wien. 1871.

Among the sarcomata reported are the two first tumors treated by electrolysis. Each was larger than an apple, and each was destroyed in fifteen minutes, at a single sitting. A sarcoma epulis as large as a pigeon's egg was, in seven minutes, destroyed down to the bone. No fever, and but slight local reaction followed. On the thirteenth day, the tumor, with a small lamella of bone came away, and cicatrization was rapidly completed.

Of the cases of cancer the majority were very extensive, some, indeed, quite hopeless. Of the whole number, however, thirteen were successfully operated on, two were discharged from hospital improved, two without any improvement. Of these, one was a patient who refused to submit to a completion of the operation because of the pain, anæsthesia having been but incompletely produced—(no uncommon occurrence in Vienna operating theatres, a tacit confession of the distrust with which chloroform is regarded)—and one died of intercurrent disease during the time of treatment. In the cases of most extensive disease, a very powerful current was employed, under anæsthetics, usually in a single sitting, with one reäpplication to suspicious spots. In other cases, anæsthetics were not employed; the current was used as strong as the patient could bear it, and the operation was protracted to four or six sittings of from fifteen to sixty minutes.

In a case of cancer of the rectum, involving the vicinity of the orifice externally and extending upwards from the anus two inches, and sharply defined above, the patient suffered from pains so severe that even large doses of morphine injected subcutaneously could only temporarily palliate it. At the same time a most penetrating odor was disseminated. In the first sitting, the external part alone was attacked, and in forty-two minutes it was destroyed. No anæsthetic was used. The pain from this time became so much less that the patient required no more opiates, and the offensive odor ceased to give further annoyance. The slough separated on the fifth day. Three days later, the internal infiltration was submitted to treatment. The sloughs separated soon, and the general health of the patient improved so much that in less than seven weeks from the date of the second operation he was discharged, well. The subsequent history of this case is not given.

In three cases it was possible thoroughly to destroy carcinoma which was so intimately connected with the inferior maxilla that, had it been operated on by the knife, resection of that bone would have been necessary. In another case of epithelial cancer of the lower lip, the swelling of the submaxillary glands of both sides, which were largely infiltrated, entirely disappeared after the destruction of the primary disease by electrolysis. The same phenomenon was observed and reported by Dr. Neftel, of New York, in a case of recurrent cancer of the breast, which had been previously twice removed by excision.

It is worthy of note that neoplasmata have been frequently observed to grow much more rapidly under the stimulus of too weak a current which had been employed with the intention of destroying them.

These may serve as illustrations of some of the advantages of electrolysis as a means of operation. Besides, it should be observed that there is complete absence of loss of blood, and of all reaction due to such loss. Indeed, as a means of arresting bleeding from an artery which is inaccessible to ligatures, nothing can be neater or more efficient than to pierce the vessel with a needle just above the bleeding point, the needle being connected with the positive pole of a battery, the negative pole being, of course, also brought into connection with the body near by.

So free from risk is the application of electrolysis that Benedikt reports a case in which he introduced a long needle into a fibroid tumor of the uterus through the abdominal walls; no general reaction followed, and the local reaction was quite insignificant. So completely free from all formidable features is it, if performed under ether, that electrolysis may be employed, even if only as a palliative operation, in many cases where it can at least afford relief from painful and distressing symptoms, and render a prolonged life supportable, when operation by the knife might be refused by the patient, or, indeed, might involve so many chances of an unfavorable result as to forbid the surgeon's advising it.

On the other hand, the expense of a battery fitted for electrolytic operations is not inconsiderable; such a battery is with difficulty transported, and with the batteries hitherto used the time which such operations require is relatively somewhat long. Perhaps still more powerful batteries, or the simultaneous use of more than one for different parts of a tumor, might obviate this last disadvantage.

Anyone who may wish to pursue this

subject still furthur, will find it treated in detail in the above-mentioned monograph of Prof. Groh, and in Dr. Victor von Brun's work on "die Galvano-Chirurgie."

Samaden, Switzerland, July, 1872.

RUPTURE OF MEMBRANES; DELIVERY OF LIVING CHILD TWELVE DAYS AFTERWARDS.

By W. H. Campbell, M.D., Harv.

A communication in the *British Medical Journal* of May, 1872, from the pen of Dr. J. Thorburn, of Manchester, England, on the subject of premature rupture of the membranes, recalls a case which occurred in my own practice in May, 1870, which I think is worth placing on record in that connection.

Mrs. H., aged 22, in her second pregnancy, applied for relief from excessive vomiting. She stated that she was in her sixth month, and had vomited from the commencement, but could always retain some portion of her food till lately, and at the present time she vomited everything she ate.

I tried in turn all of the vaunted remedies, with no success, and at last, after consulting with another physician, I proceeded to induce premature delivery, believing that it was necessary to save the life of my patient.

On the evening of the 30th of May, I passed a sound into the uterus and ruptured the membranes. She vomited less that night, and next morning could retain food well.

She improved from day to day, but no signs of delivery were manifested, and I began to think that the dead fœtus was to be retained till it decomposed. But on the afternoon of the 10th of June, twelve days after puncturing the membranes, she was delivered of a child which lived after birth about six hours.

In this case, the fœtus remained alive and well for twelve days after the discharge of—at least a portion of—the amniotic fluid. Another point of interest was the relief obtained, the vomiting ceasing as soon as the contents of the uterus were disturbed, and before they were fully expelled, and long before the separation of the placenta.

1328 *Tremont St., Aug. 24th*, 1872.

Progress in Medicine.

REPORT ON THERAPEUTICS.

By Robert T. Edes, M.D. Harv.

The present report on therapeutics being the first of the series, no attempt has been made to confine it strictly within the half yearly limit proposed.

The figures in the table below are presented, on account of the interest and importance of the subject, for comparison with each other and with the statements which follow. The most valuable figures are those where two different methods of treatment in the same institution or among the same class of persons are contrasted with each other.

Mortality from Typhoid and Typhus.

Authority.	Disease.	No. of cases.	Treatment or Hospital.	Mortality per cent.
Dr. Cotting.	Typhus.	307	Expectant.	10·09
N. Y. Commis'rs Emigration.	"	2009	Ward's Island.	21·25
Dr. Jackson.	Typhoid.	303	Massachusetts General Hospital.	13·86
Dr. Flint.	Both ?	63		19·04
"	"	70	Without acid.	20·00
"	"	38	With acid.	10·25
Dr. Upham.	Typhus.	38	Boston City Hospital.	26·31
"	Typhoid.	152	" " "	13·80
Dr. Murchison.	Typhus.	18.592		18·78
"	Typhoid.	18.612		18·62
Dr. Chambers.	"	109	Without acid.	19·26
"	"	121	With acid.	2·48
Dr. Jurgensen.	"	330	"Indifferent." A few with calomel.	15·4
"	"	160	Cold bathing.	3·1
Brand.	"	170	Cold pack and effusion.	0·
"	"	1411*	" " " "	4.
Liebermeister & Hagenbach.	"	973	Without cold water.	·16·1
" "	"	478	Cold bathing.	8·8
Ziemssen & Immermann.	"	63	Without cold water.†	30·2
" "	"	32	With cold water.†	9·4
" "	"	12	By Brand's method.	25·0

* Including above ? † Mildest cases excluded.

Cold Water Treatment of Typhoid and Hyperpyrexia in Rheumatism.—Schols, in Bremen (*Deutches Arch. f. Klin. Med.*, ix., 176, 199, and *Centr. f. d. Med. Wiss.*, 1872), has lost since 1869, 5 cases in 125, that is 4 per cent. Baths were given when the temperature rose above 39° C. (102·2° Fahr.). In severe cases, cold applications were made to the chest and abdomen. The chief contraindication to this treatment is intestinal hæmorrhage. It is also but little applicable to those rare cases, mostly among habitual drunkards, where the disease, though presenting severe symptoms, is not characterized by a high temperature.

Bauer, in Munich (*Bayerisch. Arzt. Intell. Bl.* 1872, No. 8, and *Centralbl. f. d. Med. Wiss*, 1872), concludes that the mortality in general is diminished by the cold water treatment, that the mortality is increased by a disregard of the disease in its early stages, the want of regular, early, antifebrile treatment, and by insufficient nourishment. Baths were given at 39·6° (in rectum) and ice bags applied. The baths were usually at 16° or 18° or if the patient was very weak, a longer one at a higher temperature was used.

Lissaner (*Virch. Archiv* liii. 266, 272, and *Centralbl. f. d. Med. Wiss.* 1872), in three army hospitals observed a mortality from typhoid of 11 in 46, under an expectant treatment, and of 6 in 97, under the use of cold water. He considered that great advantage was derived from a combination of the cold water treatment with the use of quinine, according to Binz's plan, giving 1 gm. (15 grains) at night. In this way the remission of the fever was prolonged so that it was possible to get along with two or at the most three baths per diem.

Götz (*Prager Virschrift*, 1872 and *Centralblatt f. d. Med. Wiss.* 1872) reports from the Vienna General Hospital, that the mortality from typhoid under the expectant treatment was 28·72, under cold water treatment, 15·4. In typhus maculata, on the other hand, the corresponding figures were 17.97 and 26.16.

Brand (*Wien. Med. Wochenschrift* 1872, No. 6 and 9, and *Centralblatt f. d. Med. Wiss* 1872) criticises a report from Duchek's clinic in Vienna, which was unfavorable to the cold water treatment, because the baths were not continued through the night as they should have been. He says that it is not sufficient to bathe when the temperature reaches 39° C., but that the baths should be given often and long enough to keep the temperature between 37° and 38° (98.6° and 100.4° Fahr.) or within a few tenths of a degree of this limit. He thinks that the fever may thus be completely kept under, and, if the treatment is begun early enough, the mortality reduced to zero.

Riegel (*Deutches Archiv f. klin Med.* ix. 433 and 451, and *Cbl.*, 1872, p. 431) applied the cold water treatment in the Julius Hospital at Würzburg in a mild (?) form. The bath was warmed to 68° Fahr., and the patient allowed to remain therein ten minutes. Half baths were used and colder water poured on from above. Baths were given when the temperature reached 103·1°, and in the intervals cold compresses were applied to the abdomen. In the years 1870 and 1871, of 156 patients with typhoid, only the severer cases being reckoned, only 7 died (4.48 p. c.). Before the introduction of the cold water treatment into the same hospital the usual percentage of mortality was 20 per cent. Riegel, like Jürgenson and Hagenbach, observed very frequently a severe burning pain in the soles of the feet so that there seems to exist some connection between this symptom and the cold water treatment. Intestinal hæmorrhage seemed no more frequent than under an expectant treatment, perhaps from the mild character of the hydro-therapeutics.

Dr. Kelly (*Practitioner*, July, 1862) reports two cases of hyperpyrexia in rheumatism, in one of which, a man, the temperature gradually rose until death, while in the other, in which the temperature rose even higher, the cold pack was applied, by sheets continually wrung out of cold water, reducing the temperature in four and a half hours from 106·2° to 99·6°. Brandy was frequently given throughout the treatment. From this date the patient began to mend.

Chloral Hydrate.—Byasson and Follet (*Robin's Journal de l'Anat. et de la Physiol.*, 1870–71, 570–580) found chloroform in the breath during sleep from chloral, and, after it, formic acid in the urine. They think that too little importance has been heretofore attached to the presence of formic acid in the nascent state. It acts by taking the oxygen of the blood to form carbonic acid, thus producing asphyxia. The soda and magnesia salts of trichloracetic acid, given by the mouth or subcutaneously, act similarly to, but less powerfully than, chloral. The details of the experiments are not given.

Jolly (*Cbl.*, 1872, p. 394), in the course of two years during which he has given chloral hydrate to insane persons, has observed two cases in which death occurred suddenly after seventy-five grains, a dose which is far below that ordinarily stated as a maximum. Both cases had presented symptoms of excitability without paralysis. One, who had for four days borne well a dose of 75 grs. at night, a few moments after taking a fifth of the same size collapsed, with immediate stoppage of the respiration and movements of the heart. The autopsy showed anæmia of the brain, acute pulmonary œdema, congestion of the abdominal organs, perfectly normal heart, dark and fluid blood.

The second had taken the same dose twelve days, with the usual hypnotic action after a short stage of excitement; a quarter of an hour after the thirteenth dose he suddenly fell, and died after a few rattling respirations. The autopsy showed moderate œdema of the lungs, fluid blood, which was divided among the organs in normal proportions. The heart, however, was large and flaccid, its muscles pale, but not friable.

Jolly attributes the poisonous effects which have occurred from chloral hydrate to one of three conditions:—1st. Slowing of the respiration, which may become stertorous, and lead to sopor, coma and death; 2d. Paralyzing influence on the vascular nervous system (deficient innervation of the cutaneous vessels leads to erythema, petechiæ, &c., after the use of chloral); 3d. Direct paralyzing influence on the heart itself. He supposes his own fatal cases to have been of the third kind, and advises, for use with the insane, that large doses should be replaced by smaller and more frequently repeated ones.

Maschka *(Cbl.*, 1872, p. 176) reports the case of a person who took sixty grains of chloral hydrate in order to have teeth extracted. Soon after the operation, the face became red and then pale, the breathing ceased, and the patient died in a few moments. The autopsy disclosed hyperæmia of the brain and its membranes, diseased tricuspid valves and thin walls to the left side of the heart.

Croft *(Lancet*, 1871, vol. ii., No. 19, and *Cbl.*, 1871, p. iii.) reports two cases of tetanus successfully treated with chloral. The cases are supposed to differ from many others published, in that the action of the chloral was obscured by no other drug, and the cases were certainly not of the lightest.

Lorey *(Deutches Klinik*, 1871, 46), gave in whooping cough a teaspoonful of a solution of chloral hydrate (1 to 30) two or three times a day. The attacks became less severe, the nights were undisturbed by cough, and the duration of the convulsive stage shorter.

Lactic Acid.—Balfour *(Edinburgh Med. Journal*, 1871, 533, 544) has seen good results in diabetes from Cantani's method, which consists in the daily administration of 77 to 154 grains of lactic acid in 8 to 10 ounces of water. The diet is extremely strict, milk and eggs, as well as vegetables, being forbidden.

The following cases are of great interest in connection with the lactic-acid theory of rheumatism and the experiments of Richardson, who produced in dogs reddening of the endocardium, with symptoms of endocarditis, and soreness and stiffness of joints by the injection of lactic acid into the peritoneum.

Balthazar W. Foster *(Brit. Med. Journal*, Dec. 23, 1871) treated a case of diabetes by lactic acid. When fifteen minims of the acid was given four times daily, the patient had acute pains in the loins and flying pains about the limbs. Upon the acid being stopped the pains subsided. Upon its resumption, the pains returned, the fingers, wrists and elbows were red, hot and swollen. The acid was discontinued, and the pains subsided in two or three days. This happened several times. The second case acted similarly.

Foster supposes that in health a much larger quantity of lactic acid might be excreted without giving trouble, but that in cases like the above, disordered assimilation of some kind must exist to prevent its being burnt up.

Alkaline Salts.—Rabuteau (*Gaz. Hebd.*, 1871, Nos. 43, 46, 48, and *Cbl.*, 1872, p. 189), in a series of experiments upon himself, has found that the alkaline carbonates diminish the excretion of urea and the temperature. Carbonate of ammonia is less effective than the carbonates of potassa and soda. Introduced in less doses than two drachms and a half, it does not, like the other carbonates, render the urine alkaline, but is partly excreted as a phosphate in the urine and in part changed in the intestine to the hydrochlorate. If doses of about forty grains are injected into a vein of a dog, a hyperæsthesia and general torpidity are produced, from which the animal recovers in about twenty hours. If sixty grains are introduced in the same way, he dies immediately from cardiac paralysis.

All the alkaline salts, with the exception of sal ammoniac, have the same action, since the alkaline blood separates from them free ammonia, traces of the elimination of which may, according to Rabuteau, be detected in the animal's breath. In the same way as the alkaline carbonates act, the alkaline salts of the lower fatty acids (formic, acetic, valerianic), the vegetable acids (tartaric, malic and citric), and of benzoic and lactic acids, because they are burnt up in the blood to carbonates, and as such excreted by the urine making it alkaline.

Chloroform and Morphia.—MM. Labbé and Guyon (*Practitioner*, July, 1872) have made use of the fact, pointed out by Bernard, that the anæsthesia produced by chloroform can be greatly prolonged by the subcutaneous injection of morphia, in surgical practice. In a case of amputation of the foot, twenty minutes before the operation, about one-third of a grain of hydrochlorate of morphia was subcutaneously injected; chloroform was then given, and the patient exhibited slight excitement. At the expiration of seven minutes, the anæsthesia was complete, and lasted long after the operation was finished. The quantity of chloroform used was about an ounce. This patient, before sensibility returned, was wide awake, and replied intelligently to questions asked. Labbé and Guyon think that rather a larger dose of the morphia might be injected and at rather a longer period prior to the operation.

Eucalyptus Globulus.—Keller (*Cbl.* 1872, p. 368) reports concerning this drug as follows. Twenty-five quarts of tincture was prepared from ten pounds of the leaves. Of 432 cases of intermittent treated with this drug, 310 were completely cured; 122 afterwards treated with quinia, of 118 to whom quinia had been exhibited without result, 91 were completely cured by eucalyptus globulus. The dose was usually about 8 grms. (two drachms). The leaves of eucalyptus growing in Southern France are more active than those growing in Austria.

Alcohol.—Dr. Dupré (*Practitioner*, March 1872) has made a number of quantitative determinations upon the elimination of alcohol, which confirm the actual results obtained, not only by Anstie and others who hold that only a small portion of the amount of the alcohol taken is eliminated as such, but also by Lallemand, Perrin and Duroy, who, in the face of their own experiments, put forward the theory that the whole of a dose of alcohol passes off as such by the breath, urine and skin. When a constant quantity of alcohol is taken day after day, the total elimination theory would demand either that the whole should be gotten rid of in twenty-four hours, which can easily be shown not to take place, or that the amount eliminated should increase with the amount ingested, which alternative has just been disproved by Dr. Dupre. He also found that the urine of a person who never drank any liquor but once in his life, and that two years before, contained a small amount of substance capable of giving the alcohol reaction with chromic acid.*

Dr. Dupré also criticises (*Practitioner*, July 1872) a recent paper of Subbotin on the elimination of alcohol. Subbotin, by the use of an air-tight chamber, was able to collect all the excretions of rabbits to which he had administered alcohol by injection into the stomach through the cut and tied œsophagus. Making allowance for losses, it appears that, at the most, less than 25 per cent. of the alcohol taken was eliminated. The amount of alcohol used for a dose is sufficient to take away any value which these experiments might otherwise have in a therapeutic point of view, since, if a man of moderate weight were to take brandy in doses equivalent to the alcohol injected at once into the stomach of a rabbit he would use thirteen ounces. It is admitted that when a narcotic dose of alcohol is taken, the proportion eliminated is naturally increased, although, even then, entirely inadequate to remove all taken.

Subbotin did not conduct any experiment upon the plan of Dr. Dupré, that is by continuing the administration of alcohol for several days until a balance of ingestion and elimination was established, and under these circumstances determining whether the amount eliminated equalled, as it should do if totally excreted, the amount ingested. It is somewhat singular, and to an unprejudiced observer a very strong argument, that the strong supporters of the elimination theory have furnished many very good experiments to sustain the other side of the question.

Dr. Ford, of New Orleans (*N. Y. Med. Journal*), has made a large number of careful experiments by which he shows the normal presence of alcohol in very small amount in the blood. He supposes it to be derived from glucose supplied by the liver.

Rovida has given alcohol in doses of about one and a half to two and a half ounces daily (85 per cent., diluted with water and syrup) in twenty-six cases of typhus exanthematicus, and in general seen no deviation from the ordinary course of the disease; but in some cases, apparently as a consequence of the alcohol, a more or less marked fall of temperature was observed. The alcohol had no unfavorable effects, but its administration was often objected to, especially by women. Pulse and respiration generally followed the temperature.

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* Lieben found a similar state of things in regard to the iodoform test.

[To be concluded.]

Medical and Surgical Journal.

Boston: Thursday, September 19, 1872.

QUARANTINES.

Among the last Acts of Congress before its adjournment was the following, recently promulgated:—

"Whereas experience has proved that the present system of quarantine on the Southern and Gulf coasts is inefficient to prevent the ravages of yellow fever in the cities and towns of that section: Therefore—

"*Resolved, by the Senate and House of Representatives of the United States of America in Congress assembled*, that the Secretary of War be, and is hereby, directed to detail one or more medical officers of the Regular Army, who shall, during the coming season, visit each town or port on the coast of the Gulf of Mexico and the Atlantic coast which is subject or liable to invasions of yellow fever, and shall confer with the authorities of such port or town with reference to the establishment of a more uniform and effective system of quarantine, and who shall ascertain all facts having reference to the outbreaks of this disease in such ports or towns, and whether any system of quarantine is likely to be effective in preventing invasions of yellow fever, and if so, what system will least interfere with the interests of commerce at said ports; and shall make, also, a detailed report on this subject to the Secretary of War, through the Surgeon-General, on or before the assembling of the third session of the Forty-second Congress, in December, 1872."

The report of this commission will be looked for with great interest. There are many who are incredulous concerning the utility of any quarantine regulations beyond those necessary for the removal of the sick from inward bound vessels to suitable hospitals, and for the requisite cleaning of the ship; they believe the usual quarantine delays to be a great hindrance to commerce, a waste of treasure to merchants, a loss of time and increase of exposure to well passengers; especially absurd while railroads carry their crowds of travellers from one country to another without hindrance, and while the incubation of the most dreaded diseases often lasts longer than the transit, even by sea, from one country to another.

The passage of the Act of Congress, above quoted, shows how ineffectual quarantines have been on our southern borders. Indeed, a medical gentleman, who has resided for thirty years in New Orleans and its vicinity, only a day or two ago said to us, with reference to this Act, that quarantines had never prevented or restrained the yellow fever in that city; some seasons it was quite rife, and again, for years, it would be comparatively or wholly absent, giving the sanitary scheme which happened to be resorted to at the time a temporary popularity it was not entitled to. We learn, also, from private sources, that the medical profession in New Orleans are not agreed with regard to the efficiency of the quarantine regulations applied to that city, and that the matter has been the subject of lively discussion during the past summer. The Board of Health advocate rigid quarantine measures during the hot months, but other physicians think the present regulations which compel the detention of infected vessels, sometimes with perishable cargoes, while they permit passengers and crew from the same vessel to proceed to the city with the contagion upon them but not yet with the developed disease, sanitary statutes as burdensome as they are ineffectual—injuring the commerce of the city and failing to protect its inhabitants from the pestilence. They say, if yellow fever be contagious, but little is gained by quarantine since passengers and others from the infected vessels may carry the infection to the city and disseminate it as rapidly as if the vessel were herself allowed to proceed; while, on the other hand, if the disease be non-contagious, it certainly would be wrong to compel the detention of well passengers along with the sick.

These discussions in a city so "susceptible" to yellow fever as New Orleans indicate the imperative importance of investigation. We hope that the most competent officers will be detailed on the commission, and that they will give the subject a thorough and impartial examination.

The Hospitals.

MASSACHUSETTS GENERAL HOSPITAL.

Pleuritic Effusion; Rapid Absorption without Treatment. [Service of Dr. Ellis.]

On Oct. 10th, 1871, a boy, 16 years of age, entered the hospital. He was born in Boston, though he went to England when a year old, and had lived there until within a year. He was never very strong, had a long neck and flat chest. For four years he had had a bad cough in winter, though free from it in summer. At times he had had darting pains in the right side and chest. He expectorated white frothy mucus, but had never had hæmoptysis. During the last two weeks his cough had been so much worse as to confine him to the house. The appetite had failed, and he had lost considerable flesh. At night, there was coughing and sweating.

Three days after admission, a physical examination was made. The whole of the right side of the chest in front, below the second rib, was flat on percussion. On the left, flatness existed below a line extending from a point on the second rib an inch and a half to the left of the sternum obliquely down to a point an inch and a half outside the left nipple, between the sixth and seventh ribs. The sternal half of the left clavicle was dull, compared with the right. Respiration was puerile over all of the resonant part of the chest, gradually disappearing below the line of flatness, and being absent two or three inches below. On the right side of the back the voice was slightly modified.

Ten days afterwards, the line of dulness was observed to be rapidly subsiding, now passing through the right nipple. The respiration also was normal down to that point, and on the back to the same level. At this time, the line of dulness was higher in the axillary region than either in front or behind. Beneath the axilla, on the right side, was a marked friction sound.

About a week later, the patient was discharged, the effusion having disappeared.

This case is a contribution to the natural history of pleuritic effusion. The patient appeared so comfortable, when first seen, as to make it perfectly safe to watch the efforts of nature, and daily observation showed that nothing more could be expected from ordinary treatment.

The data are not such as to enable us to calculate the duration of the effusion precisely, but we are sure that an amount of serum sufficient nearly to fill the right pleural cavity was absorbed in two or three weeks without the use of other means than proper diet and good care.

Ten Cases of Acute Rheumatism without Active Treatment. [Service of Dr. Minot.]

Case I.—A Boston stone-cutter, 20 years old, entered the wards on March 27th. He had enjoyed excellent health till ten days previously, when he began to have pain in one ankle, extending afterwards to the knee and then to the joints of the other leg and of both upper extremities, accompanied by considerable heat, redness and swelling of the parts. On admission, the knees and wrists were chiefly troublesome. The heart-sounds were normal. He could sleep but little, and the appetite was poor. The tongue was moist, bowels regular, and pulse 96.

The only treatment adopted in this, as well as in all the succeeding cases, was an occasional opiate when the pain became acute, and the regular administration of five grains of citric acid thrice daily. The pain continued for about a week. He was discharged, "cured," on April 8th, after an illness whose total duration was twenty-three days.

Case II. was that of a carver, native of this city, and 21 years of age. Twelve years ago he had rheumatic fever, lasting four weeks. March 18th, he had to give up work and take to his bed, with pain in the calves of his legs, which soon extended to the feet and ankles, and then to the knees and hips. These joints became much better, but as the pain seemed to be transferred to the upper extremities, he entered the hospital March 28th. At this time there was some effusion into the left knee, and there was much suffering from pain in the back and the pelvic region. There was considerable sweating, no appetite, and but little disposition to sleep. Pulse was 72. The heart-sounds were normal.

This case was treated like the preceding one, and pursued an even and favorable course up to its discharge, on April 8th. Total duration twenty-two days.

Case III. was an Irish teamster, 32 years old, who was a healthy man until March 22, when he was seized with pain in the left side of the chest and over the region of the scapula. The next day he took to his bed, with pains in the joints of both lower extremities, accompanied by considerable heat and redness of the parts. After a few days, the right shoulder and arm were affected, and lastly the joints of the left upper extremity began to pain him so badly that he was induced to enter the hospital. At this time he was still unable to move his legs. There was some pain in the cardiac region, with a soft, systolic murmur at the apex. There was no dyspnœa. The sweating was considerable, with constipation, poor appetite, moist tongue, little sleep. Pulse 96, full and hard. This case convalesced slowly under the same expectant treatment as the previous ones. The idrosis lasted a long while. He was discharged, April 22d, after an illness of thirty-two days.

Case IV.—A healthy Nova Scotia girl, about 18 years old. She entered the hospital April 19th, having already been sick three weeks. She had been put to hard work, washing, &c., and taken cold from exposure. The pain first attacked the feet and ankles, accompanied with the usual heat and swelling of the parts. Later, it extended to the knee, and then to the hands, wrists and shoulders. The heart-sounds were normal. The appetite was poor, tongue moist. Pulse 108. She slowly convalesced under the expectant treatment, and was discharged from the hospital on June 8th, after an illness lasting about two months.

Case V.—A Boston boy, only 7 years of age, entered the hospital on April 30th. His parents were stated to be somewhat rheumatic. The patient left off his winter clothing and flannels a fortnight before the attack, which imprudence soon caused severe pain in both knees, afterwards extending to the left hip. Two days before admission, the left shoulder and the left side of the occiput were attacked. The pain allowed but little sleep. There was no marked heat or swelling of the joints. The appetite was fair, tongue moist, pulse 104, and skin cool. There was a tendency to constipation. Immediately following the first sound of the heart was an obscure, short, rubbing murmur, most marked at the apex, but audible at the base of the heart. Treatment was similar to that pursued in the previous cases. His discharge from the hospital occurred on May 11th, after an illness of about three weeks.

Case VI.—An English seaman, 30 years of age, entered the hospital on May 11th. He had always been a strong man, but ten days previously he took a cold bath, and the following day his neck and shoulders felt stiff. Chills ensued during the following four or five days, together with pain in the hips. Next his arms became painful to move. On his admission the chief seat of rheumatism was in the joints of the lower limbs, which he could move only with difficulty. The right knee was especially tender to touch on the inner side, though there was no redness. The heart-sounds were normal. He slept but little. The appetite was good, and the skin cool. Pulse was 100, and the temperature, observed in the evening, was 102° F. The usual treatment was adopted. Recovery was rapid, and he was discharged after four days' residence in the hospital.

Case VII.—A gas-fitter, 17 years of age, entered the hospital on May 8th. His parents were living and healthy, and he enjoyed excellent health until three weeks previously, when, from exposure to wet, his feet became painful and swollen. Afterwards this swelling disappeared and was transferred to the joints. On admission, the hands and wrists were painfully swollen and somewhat red. He slept but little. Appetite was poor, bowels constipated, pulse 92, and temperature 104° F. The expectant treatment was adopted, with recovery and discharge on May 30th, after an illness of about six weeks.

Case VIII.—An Irish domestic, 53 years old, entered the hospital on May 22d. She had been in good health, and never had had rheumatism until three weeks before, when, without known exposure, she was attacked by pain in the instep of one foot, followed by pain in the ankle and knee. The joints of the other limb next became implicated, obliging her to take to her bed. The slightest movement caused great pain. She could sleep but little. Tongue was coated white; appetite poor; bowels constipated; pulse was 84, temperature $103\frac{1}{2}°$ F. There was much sweating and excessive pain. The treatment adopted was similar to that of the previous cases. During the two or three days following admission, the temperature increased to $105\frac{3}{4}°$; the pulse exceeded 90, and was hard and strong; tongue became dry and red, while the sweating and restlessness continued. On the fifth day, diarrhœa occurred, with eight liquid dejections. On the eighth day, the pulse rose to 112. The respiration became a little coarse in the lower part of the left lung in front. The diarrhœa continued in spite of opiates and astringents. The next day, the patient began to sink. Pulse was 102; respiration 48, temperature $102\frac{1}{2}°$. There was subsultus tendinum. Stimulants were administered, but the following day (June 1st) she died, after an illness of nearly four weeks.

Case IX.—This patient was a hod-carrier, an American, 28 years old. He entered the hospital on June 11th, having always enjoyed good health until two weeks previously. He had lived in a damp place, and his feet had not been well protected of late. Two weeks before admission he felt pain in the sole of his left foot which extended to the knee and hip. The joints swelled, and he could not walk. The painful swelling afterwards shifted to the right lower limb and to the arms. There was much sweating and little sleep. The bowels were constipated, pulse was 112, temperature 105° F. The usual treatment was inaugurated. Four days afterwards, the temperature had sunk to 102½°, although the pulse was 116. On the eighth day, temperature was 101½°, and pulse 100. From this time, improvement was gradual and steady, and he was discharged, well, on July 4th, after an illness of about five weeks.

Case X. — A book-binder, a native of Boston, 18 years old, entered the hospital on April th. He had always enjoyed good health until four days previous to his admission, when he was taken with pain in the soles of the feet, then in the ankles and knees, afterwards in both elbows and wrists, and in the lower part of the back. As the affection attacked the joints of the upper limbs, those of the lower became less painful. There was no pain in the cardiac region nor any dyspnœa, but at the apex was heard a soft, mitral systolic murmur. Sweating was profuse. The upper part of the abdomen was distended, tympanitic and painful. He could sleep only when under opium. His appetite was very poor, bowels inclined to constipation, tongue dry, pulse 84. The expectant treatment was again adopted, namely, opiates when necessary, and five grains of citric acid every two hours. During two weeks there was no improvement. A vain attempt was made to control the profuse sweating by oxide of zinc. The pulse increased to 96, with the occasional intermission of a beat. The bowels continued to be moved only by enemata. The patient became very weak, and a bedsore began to appear on the sacrum. At times the pulse rose to 150, with great prostration, and resort was had to milk punch, beef-tea, &c.

During the third week, a "squeak" could be heard over the heart. Pulse was 104. The constipation became confirmed.

During the fourth week, the pain became strongly localized in the soles of the feet. Opium in various forms, chloral and warm omentations failed to give more than temporary and imperfect relief. At the end of the week, to relieve the extreme constipation, calomel and jalap were given. No effect followed this, but three days afterwards diarrhœa set in, with eight abundant dejections, followed by considerable prostration. Pulse became 144; tongue was very dry. At the heart-apex was a sharp systolic murmur. Infusion of digitalis was given to regulate the upward tendency of the pulse, but after two days was omitted, failing of the desired effect. Pulse was then about 168. An alcoholic and supporting treatment was adopted, and he gradually rallied under the use of perchloride of iron. The pulse regained its previous rate of about 100.

In the seventh week, diarrhœa again set in and could not be controlled by drugs. After a period of four or five days it diminished, then altogether ceased, and was followed by obstinate constipation for a week.

During the seventh and eighth weeks the feet were much swollen and very tender. There was constant pain in the abdomen to the left of the umbilicus, which could be relieved only by subcutaneous injections of morphia, under the influence of which he was almost constantly kept.

In this condition the patient remained for nearly ten weeks longer. The region of the left groin gradually became occupied by an inflamed, fluctuating swelling, which was opened on Aug. 2d, allowing the escape of a considerable amount of laudable pus. After the incision, the constant pain still continued, necessitating the use of morphine subcutaneously in very large doses. Ten days after the opening of the abscess, between 7½, A.M., and 11, P.M., he had twelve grains [12 grs.] of morphia subcutaneously, the last dose being three grains.

Death occurred August 12th, after an illness of about twenty weeks.

Autopsy, by Dr. Fitz, four hours after death.

There was no rigor mortis. The body was extremely emaciated, the feet œdematous, the skin rough. In the left groin was a subcutaneous abscess, extending two inches above and below Poupart's ligament.

The pericardial cavity was completely obliterated by recent yet quite firm adhesions, which could be separated, and left a thick, rough, opaque and somewhat hæmorrhagic pericardium. The heart was pale and anæmic, the muscular structure sufficiently firm. On the mitral valves were slight excrescences (valvular endocarditis). The other valves were healthy.

The lungs collapsed readily. The lung tissue was pale and slightly pigmented. The lower left lobe was dense, of grayish-red color, and the cut surface presented occasional gray patches of the size of the head of a pin. The surface in general was more homogeneous than normal, and on pressure a sero-purulent fluid appeared, with drops of pus, corresponding to the gray patches. A similar fluid was in the bronchi. The right lung was healthy. The larger branches of the pulmonary arteries of both lungs contained thrombi, which had evidently existed for some time, one of the thrombi being adherent to the vessel walls.

The spleen was normal, as were also the stomach and small intestine. The liver was a small one. The left kidney was about one-half the normal size, while the right was half as large again (complementary hypertrophy). In the pelves and infundibula was an abundance of uric acid, not, however, formed into a calculus. Both kidneys were healthy, though anæmic.

The transverse colon contained considerable yellow, feculant matter. There existed, also, an extensive catarrhal ulcer, about the size of the palm of the hand, the greatest diameter parallel with the intestine and the base formed by the muscular coat. The edges were made up of polypus-like masses of mucous membrane, and similar islets were found in the bed of the ulcer. Just beyond the edges were a few minute, rounded ulcerations. A similar but smaller ulcer was found in the descending colon. The follicles of the intestine were enlarged, and the mucous membrane thickened, gray and opaque.

D.

SUMMARY.

Case.	Years of age.	Previous attacks.	Heart-sounds.	Bowels.	Pulse highest.	Duration.	Stay in hospital.	Highest temperature.	Result.
1	20	None.	Normal.	Well.	96	23 days.	11 days.	Unobs.	Recovery.
2	21	One.	"	"	72	22 days.	10 days.	"	"
3	32	None.	Systolic murmur at apex.	Constip.	96	31 days.	22 days.	"	"
4	18	None.	Normal.	Well.	108	2 months	50 days.	"	"
5	7	Rheum. hereditary.	Friction murmur at apex.	Constip.	104	21 days.	12 days.	"	"
6	30	None.	Normal.	Well.	100	12 days.	4 days.	102° F.	"
7	17	None.	Unobs.	Constip.	92	6 weeks.	22 days.	104° F.	"
8	53	None.	"	Loose.	112	3½ weeks.	11 days,	105°¾ F.	Death.
9	28	None.	"	Constip.	116	5 weeks.	22 days.	105° F.	Recovery.
10	18	None.	Soft systolic mitral murmur.	Loose.	150+	20 weeks.	20 weeks.		Death.

BOSTON CITY HOSPITAL.

[*Six Cases of Hydrocele.*

I.—D. L., æt. 60, entered the hospital with a hydrocele on the left side, of two years' duration. It had been tapped twice. The sac was opened by a free incision and nearly a pint of serum escaped. The wound was then filled with dry lint, and adhesive plaster was passed around the dressing. On the second day after the operation the lint was removed and the wound dressed with a weak solution of carbolic acid. Two days later, there was considerable suppuration; but there was only a moderate inflammation of the scrotum. At the end of a week, the irritation was still inconsiderable. The dressing was now changed to a lotion of liq. sodæ chl. (1 part to 5) and tinct. opii. The progress towards recovery was now rapid, and on the 22d day after the operation, the patient was discharged, well.

II.—A. W., 47 years of age, presented himself with a hydrocele that had existed for four years. It had never been tapped. At the time of his entrance to the hospital, the tumor was the size of the fist. There was no pain, and only inconvenience from its size. Tincture of iodine had been applied externally. The tumor was first tapped with an aspirator and its contents found to be fluid. The sack was then freely opened, giving exit to twelve ounces of serum. The cavity of the hydrocele was stuffed with lint. During the following week there was considerable inflammation of the scrotum, with infiltration of the subcutaneous tissues. A temporary and slight attack of erysipelas retarded the progress of healing during the fourth week. At the end of forty-one days, however, the patient was discharged, nearly well.

III.—M. G., aged 62, had noticed an enlargement of the scrotum during the past four years. It had grown slowly until it had reached the size of the fist. It had never been treated. The sac was evacuated by means of an aspirator, and an ounce of alcohol injected into the cavity. The opening in the scrotum was then closed with adhesive plaster. After the expiration of a week, during which time the swelling and local irritation were inconsiderable, two ounces of alcohol were injected. Following this, there was much more irritation than after the previous injection. The swelling involved the whole scrotum and the penis. This swelling, however, gradually subsided, the effused matter was absorbed and the scrotum resumed its normal size. On the forty-second day after the first alcoholic injection the patient was discharged, well.

IV.—J. C., 42 years of age, has had a hydrocele for the past two years, which has now attained the size of a large fist. This has been tapped several times. The sac was laid open freely and left to granulate. On the ninth day after the operation, there were symptoms of the formation of an abscess, and poultices were applied to the part for one week. The abscess healed, however, without complication, and the patient was discharged, well, after thirty-six days of treatment. [The four preceding cases occurred in the service of Dr. Cheever.]

V.—[Service of Dr. Ingalls]. H. L., æt. 55, entered the hospital with the following history. Five years previously he had accidentally sat on his testicle; this caused some pain for two or three days. Three weeks later, the scrotum began to swell slowly, and gradually attained the size of a large cocoanut. Complaint was made of tenderness on pressure at the time of entrance. The tumor was pyriform in shape and translucent. The patient confessed a syphilitic history, and was, on admission, considerably debilitated. The scrotum was tapped and a quantity of dark, brownish fluid, containing cholesterine and blood corpuscles was withdrawn. The tunica vaginalis was much thickened. After four days, the scrotum appeared to have resumed nearly its former size. A second tapping brought away seven ounces of a straw-colored fluid. The cavity again filled rapidly, attended with some pain. On the introduction of the trocar, nine ounces of dark brown, excessively fœtid fluid escaped, with bubbles of gas. On the following day, the scrotum was laid freely open, and the tunica vaginalis was found sloughy and much thickened. A drainage tube was introduced. The next day, gangrene of the scrotum began to develope. In spite of active stimulation and supporting measures, severe rigors, delirium and general prostration supervened and on the sixtieth day after the commencement of the treatment, the patient died.

VI.—[Service of Dr. Homans.] R. H., aged 45, has had a hydrocele for six years. It has been tapped twice; the second time, one week before entrance. Since the last tapping, the scrotum has become swollen and inflamed. A free incision was made into the scrotum and a considerable quantity of pus evacuated. The walls of the sac were found thickened and infiltrated. The wound was left open to granulate, and on the thirty-fifth day after entrance, the patient was discharged, well, the most simple dressings having been used meanwhile.

M.

U. S. MARINE HOSPITAL; CHELSEA.

[Service of Dr. Bancroft.]

Fracture of Femur.—A. B., aged 26, sailor, entered the hospital with a simple fracture of the femur of two months' duration. He had not received any treatment from the date of the injury, except that given by the mate of the ship. He also at the same time fractured his left radius and dislocated the right ulna. No treatment was adopted for the latter injuries, as the chance for any permanent benefit was very slight. The union of the fracture of the femur was of moderate firmness, with great deformity and about two and one half inches shortening, measuring from the umbilicus to the inner condyle of the femur. Near the knee-joint, which was much enlarged and anchylosed, there were several cicatrices, which the patient said were the result of disease of the joint during childhood. This limb was somewhat shorter than the other, before the accident, but how much he was unable to state. On both the outer and inner aspects of the thigh were numerous ulcers caused by the application of improperly padded splints, adjusted by the mate of the ship. The patient was etherized and the union broken up, only a slight amount of force being required. Extension and an external splint were adjusted. The patient was in a debilitated condition, but by means of nourishing diet, iron, quinine and ale, he soon began to improve. The progress towards recovery was not retarded by any bad symptom, and in twelve weeks from the commencement of the treatment he was allowed to leave his bed. The union at this time was quite firm, with three-fourths of an inch shortening, but without any apparent deformity. The condition of the knee-joint had much improved, although there was considerable enlargement of the ends of the femur and tibia, and the joint was capable of only a limited amount of motion. The patient was, however, able to walk quite well with the aid of a cane, when he was discharged.

Disease of Elbow; Amputation; Recovery.—L. M., aged 35, was admitted with a small abscess in the right axilla, which, after considerable sloughing of the subjacent tissues, commenced to heal. The patient had a syphilitic history, and soon after entrance began to complain of periosteal pain in the long bones. He was very anæmic, and a perfect specimen of the syphilitic cachexia. Iodide of potassium in large doses was administered, with marked relief to the periostitis. After having been in the hospital some little time, he began to complain of pain on motion and tenderness of the right elbow, which commenced to swell. During the following three weeks, the severity of the symptoms increased very rapidly. The elbow became very much enlarged, the pain and tenderness increased, and two or three abscesses, communicating with the interior of the joint, pointed on its outer aspect. On examination under ether, crepitation of the articular ends of the bones could be detected. The patient was having severe rigors, and was rapidly sinking. It was decided to amputate the arm, although his condition did not give much promise of recovery. The operation was accordingly performed in the upper third, by the circular method. The hæmorrhage, which proceeded principally from an immense number of minute points rather than from arteries of any size, was controlled by cold and pressure. Five vessels required ligation, however. The condition of the man rapidly improved after the operation, and in one week's time he was able to leave his bed. At the end of three weeks the arm had nearly healed, and the general health was better than it had been at any time since his admission. He continued to improve, and in five weeks from the date of the operation was well. On dissection of the joint, the articular surfaces of the humerus, radius and ulna were found eroded, and in some places honeycombed; the lateral ligaments were destroyed, and the adjacent tissues infiltrated with the products of inflammation.

Stricture of the Urethra; Foreign Body in the Bladder.—J. M., aged 28, sailor, entered the hospital with the following history. He had had a stricture for the last two years, consequent upon a gonorrhœa, and at various times had suffered from retention, which had been relieved in some instances by forcible catheterization and in others by laudanum, enemata and warm baths. Two weeks before entrance, while at sea, after exposure to cold and dampness, he suffered from retention, and for the purpose of relieving himself attempted to pass a gutta percha bougie, about the size of a No. 5, of his own manufacture. The bougie was quite brittle and in manipulating the instrument he broke off the end. He still persisted in his endeavors, however, and succeeded in pushing the broken end into the bladder. After removing the bougie, with severe straining and firm pressure over the region of the bladder, he was able to pass a small amount of urine. The stream, however, suddenly stopped, but after changing his position quite a number of times he was able to pass water again. Thus by frequent attempts at micturition he was able to relieve himself. On entrance, a stricture was found in the membranous portion of the urethra, which admitted a No. 5 bougie with some difficulty. The stricture was gradually dilated, and at the end of a week, while the patient was urinating, he passed, per urethram, without much trouble, the broken end of the bougie. The fragment was one-half an inch long, and had the diameter of a No. 5. At the expiration of three weeks, he was discharged, well.

M.

THE ADULTERATION ACT.—The following are the provisions of this measure, which, although imperfect in the shape in which it has passed the Legislature, is capable of being made to serve the public interests.

1. The penalties for poisonous adulterations are, for the first offence, a fine not exceeding £50; and for the second, six months' imprisonment, with hard labor.

2. Any person who shall knowingly mix any substance with any article of food, drink or drug, with intent fraudulently to increase its weight or bulk, unless he declares the mixture before delivering the same, will be liable to a fine not exceeding £20; and, on a second conviction, shall have his name published by the justices.

3. Compulsory power is given to local government boards to force local bodies to appoint analysts.

4. Inspectors of nuisances, weights and measures, and markets, " are forced to procure and submit articles suspected of being adulterated, and to prosecute on certificate of analysis being obtained.—*Brit. Medical Journal.*

From American Journals.

Local Uses of Tannin.—Dr. G. P. Hachenberg *(N. Y. Med. Record*, Aug. 15, 1871) reports several cases of the use of this remedy in prolapsus uteri, where other means had failed to afford relief. His method is as follows: A glass speculum is introduced into the vagina so as to push the uterus into its place. Through the speculum a metallic tube or syringe, with the end containing about thirty grains of tannin, is passed. With a piston, the tannin is now pushed against the uterus, the syringe withdrawn, and the packing neatly and effectually completed, with a dry probang, around the mouth and neck of the womb. After the packing is completed, the probang is placed against the tannin, in order to hold it, and the speculum is partially withdrawn. The packing is now fully secured and the instrument removed.

The application of tannin holds the uterus firmly and securely in place, not by dilatation of the walls of the vagina, but by corrugating and contracting its parts. At first, the applications may be made weekly, finally but once or twice a month. It not only overcomes the hypertrophy and elongation of the cervix, but even, the writer thinks, induces a slight atrophy of the parts.

As a remedy for leucorrhœa, where the seat of the inflammation is at the mouth of the womb, or within the vagina, it actually gives speedy relief.

Dr. H. also reports a case of chronic ulceration of the rectum, which was cured after a few weekly packings of tannin.

He has found, moreover, that in affections of the throat, direct applications of tannin to the diseased parts give satisfactory results. In a case of extraordinary hypertrophy of the tonsils, preparatory to the operation of extirpation, tannin mixed with tincture of iodine to the consistency of syrup, was applied with the effect of so diminishing the hypertrophy that a surgical operation will in all probability not be necessary.

No remedy has given such satisfactory results in certain forms of chronic ophthalmia and opacity of the cornea as tannin. Once a week, place under the eyelids pure, well-triturated tannin. The application is not very painful, and the tears soon dissolve the tannin. An aged lady, who had chronic ophthalmia, was relieved by one application; another, who was blind from opacity of the cornea and chronic ophthalmia, recovered her sight mainly from the local use of powdered tannin. G.

Bleached Tincture of Iodine.—The *Pharmacist and Chemical Record* (July, 1872) gives the following formula for the above preparation:—

℞. Tinct. of iodine,
Glycerine, pure, āā ℥i.
Sulphite of soda, ʒi.

Rub the salt to a powder in a small mortar, and add the glycerine gradually; then pour in the tincture of iodine and triturate gently until a solution is effected, and the mixture assumes an amber color.

It is claimed that the properties of iodine are increased by the addition of the sulphite of soda, and that the glycerine enhances its value and convenience for local application. G.

Differential Diagnosis of Anæmic from Organic Murmurs of the Heart.—Dr. Jas. H. Hutchinson *(Philadelphia Med. Times*, Aug. 15, 1872), in a lecture on anæmia, states that he has found a peculiarity in cardiac murmurs arising from anæmia, which is but obscurely alluded to by some writers on auscultation. The murmur will be found to be much more intense when the patient is in the recumbent position than when he is either standing or sitting. Having never failed to detect this greater intensity in the recumbent position in every instance in which he has auscultated anæmic patients, Dr. H. believes it is a characteristic of some importance in the differential diagnosis of anæmic from organic murmurs. G.

The "Cottage System" for the Insane.—Dr. Kirkbride, of Philadelphia, in his last report of the Pennsylvania Hospital for the Insane, states that this proposed family system, no matter what size is adopted, takes away the facility of supervision, while the risks of accidents of various kinds, especially of escapes, personal injury, and of fire, are greatly and unnecessarily increased. His own experience with cottages and detached buildings, even at very short distances, long since led him to the conclusion that no building to be occupied by patients should be so far removed from the main structure as not to be connected with it by a covered way, well lighted at all times, and comfortably warmed in winter.—*N. Y. Medical Record.*

Medical Miscellany.

DR. D. W. CHEEVER, of this city, has just returned from his three months' sojourn in Europe.

M. LOUIS.—The death of this eminent and veteran physician and teacher is announced. It occurred in Paris, on the 23d of August, after an illness of about two months. His name is associated with some of the most important pathological discoveries of this century. He graduated in medicine in 1818.

THE AMERICAN PUBLIC HEALTH ASSOCIATION.—A large number of medical and other scientific men have organized as the American Public Health Association, with Stephen Smith, of New York, president; Edwin M. Snow, of Providence, first vice, and C. B. White, of New Orleans, second vice-president; John H. Rauch, of Chicago, treasurer; Elisha Harris, of New York, secretary; Francis Bacon, of New Haven, William Clendenin, of Cincinnati, C. C. Cox, of Washington, Henry Hartshorne, of Philadelphia, Moreau Morris, of New York, and John M. Woodworth, of Washington, executive committee. Various important subjects are referred to special committees. The present number of members is ninety-five, all well-known workers in the field of sanitary improvement in the cities of the United States and Canada. The next meeting will be at Washington in the last week in February.

QUACK ADVERTISEMENTS PROHIBITED.—The posting of the hand-bills of quacks and of advertisements of quack-medicines about the streets is prohibited in Chicago. The example might well be followed elsewhere, not only in cities, but throughout the country. If the prohibition could be made of general application, no one but the quacks would find fault at the decadence of this peculiarly American practice.

MAIMING ESTABLISHMENTS.—The police of London have discovered an establishment at which, for various sums and according to the service rendered and the age of the victims, little children are maimed by the distortion of their legs, so as to serve by reason of their deformities as catch-pennies for beggars. Those in the habit of indiscriminate alms-giving will find something comforting in this discovery.

SMALLPOX is reported to be epidemic in Vienna, and the mortality is on the increase.

HEALTH OF ROME.—Sickness is very prevalent in Rome, and the hospitals, over-crowded, are obliged to turn away scores of applicants for admission. It is proposed to make temporary use of the vacant convents as hospitals, but the proposition does not find favor with the church authorities of the city.

PROF. JOHN TYNDALL, who is to visit this country in October, will remain here six months. He will be the guest of Professor Henry, secretary of the Smithsonian Institution, Washington. He will lecture in all our large cities on physical researches, though it is not unlikely that he will find time during his stay to speak upon scientific education, to which he has given a great deal of attention.

A HOSPITAL FOR INCURABLES will soon be established at Oxford, England.

ERRATUM.—On page 178, line 29, for "left" read *right*.

BOOKS RECEIVED.—The Treatment of Syphilis with Subcutaneous Sublimate Injections. By Dr. George Lewin, Professor at the Fr. Milh. University, Berlin, &c. Translated by Carl Proegler, M.D., and E. H. Gale, M.D. Philadelphia: Lindsay & Blakiston. 1872. Pp. 249.—The Functional Diseases of the Renal, Urinary and Reproductive Organs, with a general review of Urinary Pathology. By D. Campbell Black, M.D., L.R.C.S. Edin., &c. Philadelphia: Lindsay & Blakiston. 1872. Pp. 172.—Smallpox; the Predisposing Conditions and their Preventives. With a Scientific Exposition of Vaccination. By Dr. Carl Both. Second Edition. Boston: Alex. Moore. 1872. Pp. 82.—The Anatomy and Development of Rodent Ulcer. A Boylston Medical Prize Essay for 1872. By J. Collins Warren, M.D. Boston: Little, Brown & Co. 1872. Pp. 66. —The Journal of the Gynæcological Society of Boston. January to July, 1872. Boston: James Campbell. 1872. Pp. 480. (From the Publishers.)—New Treatment of Venereal Diseases and of Ulcerative Syphilitic Affections by Iodoform. Translated from the French of Dr. A. A. Izard by Howard F. Damon, M.D. Boston: James Campbell. 1872. Pp. 73. (From the Publishers.)

DIED,—In this city, 14th inst., Howard Sargent, M.D., aged 61 years.

Deaths in fourteen Cities and Towns of Massachusetts, for the week ending Sept. 7, 1872.

Cities and Towns.	*No. of Deaths.*
Boston	169
Charlestown	11
Worcester	31
Milford	4
Chelsea	6
Cambridge	37
Salem	10
Lawrence	10
Springfield	7
Lynn	27
Gloucester	9
Fitchburg	1
Newburyport	10
Somerville	10
	342

Prevalent Diseases.

Cholera Infantum	90
Consumption	56
Dysentery & Diarrhœa	17
Typhoid Fever	11

Four deaths from smallpox occurred in Boston.

GEORGE DERBY, M.D.,
Secretary of State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, September 14, 188. Males, 91; females, 97. Accident, 2 apoplexy, 1—anæmia, 1—inflammation of the bowels, 2 —inflammation of the brain, 1—congestion of the brain, 2—disease of the brain, 8—cerebro-spinal meningitis, 4—cancer, 4—cholera infantum, 33—consumption, 21—convulsions, 7—croup, 1—debility, 5—diarrhœa, 10—dropsy, 3—dropsy of brain, 2—dysentery, 8—scarlet fever, 2—typhoid fever, 7—gastritis, 1—disease of the heart, 6—intemperance, 3—disease of the kidneys, 2—disease of the liver, 3—congestion of the lungs, 4—inflammation of the lungs, 4—marasmus, 8—necrosis, 1—old age, 2—paralysis, 2—premature birth, 5—puerperal disease, 2—scalded, 1—smallpox, 7—spina bifida, 1—spine disease, 1—whooping cough, 2—unknown, 8.

Under 5 years of age, 97—between 5 and 20 years, 14 —between 20 and 40 years, 36—between 40 and 60 years, 16—above 60 years, 25. Born in the United States, 134 —Ireland, 33—other places, 21.

THE

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Original Communications.

A NEW RULE FOR DOSES.

By E. H. Clarke, M.D.

The doses, given in works on materia medica for the administration of medicines, are intended for adults of average health and strength. These average doses are, of course, varied by the physician, when prescribing, so as to suit differences of age, disease, sex, temperament, idiosyncrasy and the like. Of the various modifying circumstances that affect the dose, age has always been recognized as the most important, as it is the most obvious one. Several schemes or rules, intended to aid the memory in apportioning doses to different ages, have been proposed. Two are commonly referred to as the best. Both of them are familiar, and both may be found in the United States Dispensatory.

The first is the table of Gaubius, according to which the dose of an adult being 1, or 1 drachm, that of a person from

14 to 21 years will be $\frac{2}{3}$ or 2 scruples.
7 to 14 " " " $\frac{1}{2}$ or $\frac{1}{2}$ drachm.
4 to 7 " " " $\frac{1}{3}$ or 1 scruple.
At 4 years old, the dose will be $\frac{1}{4}$ or 15 grs.
At 3 " " " " " " $\frac{1}{6}$ or 10 grs.
At 2 " " " " " " $\frac{1}{8}$ or 8 grs.
At 1 " " " " " " $\frac{1}{12}$ or 5 grs.

Dr. Young's rule, extracted from the Pharmacologia of Dr. Paris, is generally preferred, on account of its simplicity, to the table of Gaubius. It is this :—"for children under 12 years, the dose of most medicines must be diminished in the proportion of the age to the age increased by twelve ; thus at 2 years to $\frac{1}{7}$: viz., $\frac{2}{2+12}=\frac{1}{7}$. At 21 the full dose may be given."

Physiological experiment has shown that the weight of animals is not only as important an element in apportioning doses of drugs as age, but is probably a more important one than that. Thus, Dr. Fraser, of Edinburgh, in his recent admirable monograph on Physostigmia and Atropia, has shown that the minimum lethal dose of sulphate of physostigmia for rabbits is 0·04 grain for every pound. M. Claude Bernard has called attention to the fact that in physiological experiments with drugs on animals, the dose should vary with the weight of the animal. Clinical observation shows that men in this respect are not unlike other animals ; and that in the administration of remedies the dose should vary with the weight of the patient, in order to obtain the best therapeutical result. Guided by this principle, it is easy to give a rule for doses that is more exact and more easily remembered than the table of Gaubius or the equation of Dr. Young.

Assuming the average weight of an adult to be one hundred and fifty pounds, for whom an appropriate dose is 1 or 1 drachm, the dose of most medicines must be increased or diminished in the proportion of the weight of the patient to that number of pounds. This proportion is represented by a fraction, whose numerator is the patient's weight and whose denominator is 150. If a child at birth weighs six pounds, the appropriate dose for it would be $\frac{6}{150}$ or $\frac{1}{25}$; if it weighs ten pounds, $\frac{10}{150}$ or $\frac{1}{15}$. A child 2 years old, weighing twenty pounds, would require $\frac{20}{150}$ or about $\frac{1}{7}$ of an adult dose ; or, more precisely, $\frac{1}{7\frac{1}{2}}$, which is exactly half way between the quantity indicated by the table of Gaubius for a child two years old and that indicated by Dr. Young's scheme for the same age. A person whose weight is two hundred pounds should have $\frac{200}{150}$ or $1\frac{1}{3}$ of an average adult dose. A child 12 years old, weighing 75 pounds, would require $\frac{75}{150}$ or $\frac{1}{2}$ of an average dose.

The modifications of the average dose, demanded by a patient's idiosyncrasy, disease and other conditions than age or weight, are not, of course, met by the above rule.

Boston, August, 1872.

MEDICATION IN INSANITY.

Read at a Meeting of the Norfolk (Mass.) District Medical Society, July 10th, 1872.

By Silas E. Stone, M.D. Harv.

A passage in Dodoneus's History of Plants, which I examined a few days ago as a curiosity in botanical literature, has suggested some thoughts on the subject for to-day.

Writing of the common feverfew, he says of the virtues of the plant:—" Feverfew dried and made into powder and two drammes of it taken with honey, or other thing, purgeth by siege melancholy and phlegm; wherefore it is very good . . . . for melancholic people and such as be sad and pensive and without speech."

Here was a person distinguished for learning, holding appointments as physician to two emperors, and professor of physic to the renowned University of Leyden, recommending as a cure for melancholy or dementia a plant of little or no activity.

In our day the esteem in which purely medical treatment is held in this class of cases may be in some measure judged from the space given to its consideration in modern works on mental diseases.

Griesinger, in his Mental Pathology and Therapeutics, gives less than twelve pages to the purely medical treatment of the insane. Maudsley disposes of this subject, including bloodletting, baths and counter-irritation, in less than eight pages, while Winslow, in his work on Obscure Diseases of the Brain and Mind—which occupies 706 pages—finds five pages sufficient for the therapeutics of insanity.

Does this indicate that, like Macbeth's physician, when asked—

> "Canst thou not minister to a mind diseased ?"

we must reply,

> "Therein the patient
> Must minister unto himself" ?

Rather does it not imply that our treatment will consist of something besides that " sweet, oblivious antidote " he was called upon to administer, and that dosing will form a very small part of it.

The practice of surgery has been no more simplified from the complexity and confusion of former times than the practice of psychological medicine, and between these two branches some striking analogies exist.

A man meets with some accident, a fracture, for example; he is obliged to keep his bed and have splints applied. He is rendered helpless and dependent on others, though his general health may not be seriously affected. Should severe pain or muscular spasm occur, his sufferings may be diminished and his strength saved by judicious medication.

In acute mania, such as may follow some great mental shock, the room and seclusion are the bed and splint. The patient wholly depends on the care of his attendant, though muscular power and digestion may be unimpaired. Spasmodic bursts of excitement and loss of sleep are likely to occur, and after recovery he may be left crippled and disabled in his mind. Both often depend on drugs for the needed sleep which nature refuses, while, if the strength of the constitution of either is tried, he must be supported by stimulants and concentrated nourishment. Formerly, bleeding and purging, with, perhaps, emetics, were considered essential at the outset, but in both cases these have been found to disturb the patient without any corresponding good results.

Medication, in order to be effective, must modify the function or structure of the organ to which it is addressed, and consequently our treatment will largely depend on our understanding of the nature of the disease.

If, like the voice and digestion, the mind is a complex function, depending on the activity of its proper organ, then its disorders can be rationally addressed by those remedies which affect the brain; and such have always proved to be the most efficacious.

Mental disease, then, is to be regarded as cerebral disease, functional or organic. And thus we bring it into the catalogue of other diseases of the body, which are all governed by the same vital laws, and are, therefore, to be treated on the same general principles.

A slight acquaintance with maniacal affections will show that we find among them the same variety observed in ordinary practice.

Here we shall find both acute and chronic affections; the self-limited and the incurable; those whose termination may be expected in a few days, or others which may drag their slow course through months, years even, and then end in permanent recovery. Instead of the violent practice of blistering, purging, bleeding and showering, which formerly prevailed, and which was preceded by exorcism even more unphilosophical, a more accurate knowledge of mental disease has, as in other departments of practice, led to more rational views of treatment; in illustration of which nothing can be plainer than such statements as the following, from Griesinger. Speaking of treatment, he says :—

" In mental, as in other diseases, the simple expectant and dietetic—which is far from meriting the absurd reproach of the do-nothing—is, in many cases, though not in all, far in advance of the employment of very active and often changed remedies. To how small an extent their recovery is, properly speaking, due to direct medicinal interference is seen from the similarity of statistics furnished by various asylums where the methods of treatment are essentially different."

And, again, "observation shows that very many cases of recent disease (insanity) proceed spontaneously to recovery without much positive interference through a treatment limited to the warding off of all injurious influences."

If our drugs alter the structure or function of an organ, then they may do harm as well as good, and this we should always bear in mind, but we should not discard them on that account, any more than the surgeon would the knife because in the hand of some ignorant or inexperienced person it has proved an injury where it was designed to benefit. This, it seems to me, is especially to be guarded against in treating so delicate an organ as the brain.

If a case of acute melancholy with excitement comes under our care, let us not send it away with the opium habit substituted for it, nor make our epileptic pay the price of bromide-dementia for the relief from occasional convulsions.

The small proportion which insanity bears to ordinary sickness, and the limited number of even these cases that can be successfully treated in their own homes, will place most of this class of cases in the hands of those who adopt this special department of practice ; but, though we may but seldom be called upon to conduct a case of insanity through its whole course, we should remember that mental disease is cerebral disease, that the medication of the insane is to be conducted on the same principles as in other cases, and just as much good and no more is to be expected from the exhibition of drugs in this class of cases as in others ; that any drug capable of doing good may do harm ; that we should not on that account be timid or hesitating, but if the indication is plain, and experience has shown the utility, we should give our patient, whether insane or sane, the benefit of decided treatment. But above all let it be borne in mind that it is very seldom that dosing is the most important part of treatment, and that often it need form but a slight and inconsiderable part of it.

Walpole, July, 1872.

Progress in Medicine.

REPORT ON THERAPEUTICS.

By Robert T. Edes, M.D. Harv.

(Concluded from page 99.)

Apomorphia is an artificial alkaloid formed by heating morphia in a closed tube with hydrochloric acid. Since its discovery by Matthiesen and Wright it has been recognized as a powerful emetic.

Siebert and Riegel and Böhm *(Centralblatt,* 1872, p. 155) report the result of some experiments thereon. Its chief advantage as an emetic is its easy and painless subcutaneous application, for which purpose it (the hydrochlorate of apomorphia) may be dissolved in water in the proportion of 1 to 100.

Vomiting seems to be preceded and accompanied by præcordial distress, affection of the head and noticeable weakness, but the return to the normal condition is very rapid and complete. Objective changes in the organism are even less. The subcutaneous injection causes little smarting, scarcely any pain, and does not result in abscess. Digestive disturbances have not been observed. The emetic dose for man is about one-tenth of a grain. A maximum dose does not seem to exist, as an increase of the effectual dose one hundredfold in animals and threefold in man produced no increase of symptoms.

The dose must be very greatly increased if given by the stomach. The English preparation seems to be several times more powerful than the German (Merck's). The purer and more active the drug and the more promptly and freely emesis set in, so much the less troublesome appeared the disagreeable subjective concomitants. Morphia does not prevent the action of apomorphia, but seems to render a larger dose necessary.

Blaser *(Cbl.,* 1872, p. 480) says a solution of hydrochlorate of apomorphia in simple syrup, if kept from the air, may be preserved unchanged for weeks. A more dilute solution, with sugar, prevents decomposition.

The English apomorphia is the only preparation which forms a completely colorless solution in water.

Atropia.—Frazer (*Trans. Roy. Soc. Edinburgh,* 1872, xxvi.; *Cbl.,* 1872, p. 395) has made a series of experiments upon the antagonism of atropia and physostigmia (calabar bean). He employed an alcoholic extract and a sulphate of physostigmia prepared by himself, and injected subcutaneously.

The smallest fatal dose of each preparation was determined for a given weight of the animals used for experiment; when an animal was kept alive by the combined action of at least this minimum dose of physostigmia united with atropia, and after perfect return to health (ten or eleven days), the animal was killed by the same or a smaller dose of physostigmia. If atropia was injected a few moments before the physostigmia, the symptoms were of a mixed character—dilated pupil, increased frequency of pulse and respiration (atropia); universal paralysis, twitching of muscles, loose discharges, increased secretion of mucus and saliva (physostigmia). In from one to one and a half hours, the symptoms began to yield; in twenty-four, the animal was fully restored, but the pupils and pulse did not return to their normal condition for five days. The symptoms were essentially the same if the physostigmia were administered at the same time or very shortly before the atropia; but those from physostigmia were always the most troublesome in the beginning, while those from atropia were the most enduring. Fraser supposes that this antagonism holds good for the higher animals.

This antagonism is not absolute; there are doses of atropia which cannot fully antagonize physostigmia, and also such as cannot be antagonized by it.

Digitalis.—Böhm (*Pflüger's Archiv*, 4 and 5 Heft, 1871; *Cbl.*, 1872, p. 219) has re-investigated the complicated subject of the action of digitalis. We have space only for his most important conclusions. Digitalin brings the inhibitory nerve centres situated in the heart into a condition of increased excitability. It has a peculiar specific action upon the heart-muscle itself, in the first stage strengthening its contractions, in the second making them irregular, and in the third bringing it to a condition of peculiar rigidity or tetanus. He thinks that the digitalin does not cause a contraction of the arterioles, but that the increased pressure in the arteries is due to the increased force of each pulsation of the heart.

Antimony.—Radziejewski (*Reichert and DuBois Reymond's Archiv* and *Cbl*, 1872, p. 278) finds that the principal symptoms to be remarked upon poisoning frogs with tartar emetic administered subcutaneously, are depression and paralysis of the heart's activity after a short initial increase, and also a disappearance of reflex irritability. The heart, remaining in diastole, does not react to stimuli which are still capable of causing contraction in other muscles. The abolition of reflex activity is due to an action upon the spinal cord.

In rabbits, comparatively smaller doses produce similar symptoms, besides a diarrhœa due to extravasations in the stomach and hyperæmia in the intestinal tract.

He does not agree to the theory that the cardiac and reflex depressant action of tartar emetic is due to the potassa contained therein, since these effects are produced by doses of tartar emetic far smaller than are required of other salts containing a much larger amount of potassa. Also, the same phenomena were produced by the chloride of antimony dissolved in tartaric acid. He thinks, contrary to the usual opinion, that the emetic action of antimonial preparations is due to a local action upon the stomach, as in two cases of the therapeutic application of tartar emetic he was able to determine that the larger part of the drug had not been absorbed. This view is also supported by the fact that much larger doses are needed to produce vomiting when injected into the blood than when given by the stomach.

While the action of antimony upon the heart, and especially upon the reflex excitability, is entirely similar to that of arsenic, it differs therefrom in this, that also its (antimony's) combination with alcoholic radicals show the same action; while, on the contrary, in the arsenical methyl and ethyl combinations the metallic action falls into the background.

Strychnia.—Mayer (*Cbl.*, 1872, p. 270) has experimented upon animals with a view to determining the influence of strychnia upon the vaso-motor nervous system. The animals were poisoned with woorara, and kept alive by artificial respiration.* Under these circumstances, the blood pressure in the veins rose upon the administration of strychnia without the frequency of the pulse being changed. Mayer attributes this rise to a tetanic contraction of the smaller vessels, which can, indeed, be directly observed in the mesentery; and since this rise is either very small or none at all after section of the spinal cord below the medulla oblongata, it probably takes place from excitation of the vaso-motor centres.

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* Woorara, by paralyzing the motor nerves, prevents the action of strychnia upon the voluntary muscles, but it is not a physiological antidote, and its own poisonous effects are fatal unless artificial respiration is used. It does not affect the vaso-motor nerves until a much later period than that at which the nerves of voluntary muscles are fully paralyzed.—E.

Upon curarized animals a slowing of the pulse was sometimes observed, so that it is probable the increase of frequency seen in some cases when the animal is not curarized is due to the general tetanus.

Carbolic Acid.—In frogs 0.2 or 0.3 gram. (3 to 4½ grains) of a concentrated solution of carbolic acid injected under the skin or into the stomach cause, first, pain and retching (Salkowski, *Pfluger's Archiv* 1872, v., *Cbl.* 1872, p. 379). After three or four minutes, the animal begins to collapse and falls into a condition of sopor. Then follows twitching of the extremities, reflex excitability is increased, but voluntary motions become weaker. Finally, more violent spasms occur, as after strychnia poisoning. This condition continues, diminishing in intensity, till death, which takes place, usually, in twenty-four hours. The muscles and nerves have lost a portion of their irritability, probably from fatigue; the heart usually makes some sluggish pulsations. Local congestion appears at the point where the poison was introduced. The blood is thin; urine clear without albumen. The action upon the nervous system consists in an increased excitability of the spinal cord.

The influence upon the heart is shown in a gradual diminution in frequency, sometimes after a temporary acceleration, and in a decrease of strength.

Poisoning in rabbits begins with fibrillar twitchings which, after some moments, pass into a general trembling. The animal becomes restless, the respiration is accelerated, convulsive shocks follow, and, finally, violent, clonic spasms occur, accompanied by flow of saliva and dilatation of the pupils. The ears are pale, bluish red, cool; the respiration rapid. Sensibility is retained, since the animals seek to avoid pinching of the skin. With medium doses, death occurs in two or three hours with tonic and clonic convulsions, but the animals often survive this condition without subsequent trouble.

Upon dissection, immediately after death, the heart is found actively pulsating, the muscles and nerves excitable. Further than this, nothing is found except the local effects, which vary with the degree of concentration at which the poison is administered. The smell of carbolic acid was not to be recognized except at the place of application. The principal difference in the symptoms between frogs and rabbits is the absence in the latter of a paralytic stage.

The same writer reports some cases in man in which, after a dessert-spoonful-dose of a 1½ to 200 solution every two hours, a slight diminution in the frequency of the pulse was observed.

For determining the presence of carbolic acid in urine, it was distilled with tartaric acid, the distillate shaken with ether, the æthereal solution re-distilled, the portion remaining dissolved in water, and used to obtain the reaction, which consists in the addition of ammonia and some drops of a solution of chloride of calcium, these producing a blue color, even in very dilute solutions.

Carbolic acid was detected, by this test, in the urine after both internal and external use. It seems to be combined with an alkali in the urine, as the experiment fails unless an acid is added. The dark color of the urine, after using carbolic acid, especially externally, ranges from olive green to dark brown, but not in direct proportion to the amount of acid present, so that a dark colored urine is no indication for discontinuing its use. As the amount of carbolic acid found in the urine is small, examinations were made to determine whether products of its oxidation were present in the body. Oxalic acid, which may be produced by the action of permanganate of potassa upon carbolic acid, was suspected and found in the blood of two rabbits out of three who had taken carbolic acid, though only in small doses.

Bert and Jolyet (*Gaz. Medicale*, 1872) distinguish two* kinds of death from carbolic acid. First, that which takes place almost instantaneously from paralysis of the heart after very large doses or rapid injection into the veins, or more slowly, in consequence of the convulsions, which last for hours. Second, that which occurs a longer time, perhaps several days after the poisoning. Dissection shows that in these cases the animal has died from a lobar pneumonia or pleuro-pneumonia, probably produced by the exhaled acid. They were not able, however, to produce this affection or any kind of poisoning by the inhalation of carbolic acid vapors. In these prolonged cases, a purulent kerato-conjunctivitis without loss of sensibility of the cornea was not infrequently observed.

Occasionally, animals supported considerable doses for several months without serious attacks. The authors have before proved that the toxic principles of woorara and strychnia solutions can be precipitated by small doses of carbolic acid, even in decomposed blood, but it is impossible, according to their experiments, to found upon this fact a treatment for such poisoning when the poison and carbolic acid are given separately.

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* There seems, from the description, to be three.—E.

Sansom (*Beale's Archives*, vol. v. No. 17; *Cbl.* 1872, p. 383) recommends the sulpho-carbolates, especially that of soda, for internal use in zymotic diseases. The sulpho-carbolate of soda may be given internally in doses of 15–30–60 grains every three or four hours. The only unpleasant symptom from a dose of 60 grains was an inclination to dizziness. In the urine of a patient who had taken six drachms in the previous twenty-four hours, a considerable quantity of sulphate of soda was found, but no carbolic acid. The easily soluble lime salt is to be used only when there are indications for the introduction of lime into the system. The zinc and copper salts are suitable for external application.

Weiske (*Centralblatt*, 1871, p. 615; and 1872 p. 174) has made experiments on three goats which were fed for several weeks on hay washed with muriatic acid, sugar, casein and starch, one of them having in addition twelve grammes *phosphate of soda* and another twenty grammes of *chalk*. On analysis of corresponding bones, it was found that about the same amount of chalk, magnesia and phosphoric acid was found in all three.

Xylol.—Burkart (*Cbl.* 1872, p. 368) finds that xylol is of use in smallpox in so far that it diminishes the eruption of pustules in the throat and consequently the angina, so that the patients can swallow, at least, fluids. It is also a deodorizer. No other effect could be observed.

Phosphorus.—Köhler (*Centralblatt*, 1872, p. 476) gives the results of experiments made under his direction, in which oil of turpentine (not the chemically pure, but the commercial as containing more oxygen) was administered to animals poisoned by phosphorus. In ten experiments on rabbits and seven on dogs, he saved all the latter and three of the former, after doses of phosphorus which would otherwise have been undoubtedly fatal. The longest time after taking the phosphorus at which a favorable action of this antidote has been observed in man is eleven hours. Turpentine is supposed to act by forming in the intestinal canal with phosphorus a new crystalline compound, which is harmless and need not even be evacuated by an emetic, but is absorbed and eliminated unchanged by the urine. The turpentine may be given in excess without fear, and may be administered in capsules or by the stomach-pump.

Bamberger (*Wien. Med. Presse*, 1872, and *Cbl.*, 1872, p. 188) thinks that neither the clinical nor experimental facts justify the reputation of turpentine. Turpentine dissolves phosphorus and hastens its evaporation. The hypothesis of Köhler, just mentioned, he considers highly improbable. The compound spoken of only forms after several hours at a temperature of 30° R. (99½° F.).

The most rational treatment of phosphorus poisoning is by the soluble salts of copper. If the sulphate acts too rapidly as an emetic, the carbonate may be used, and afterwards dissolved slowly by acetic acid.*

Bibliographical Notices.

An Experimental Research on the Antagonism between the Action of Physostigmia and Atropia. By Thomas B. Fraser, M.D., Lecturer on Materia Medica and Therapeutics, at Surgeon's Hall, Edinburgh. From the Transactions of the Royal Society of Edinburgh, vol. xxvi., pp. 184, with plates. Edinburgh, 1872.

This monograph is an admirable illustration of recent methods of research undertaken for the purpose of determining the exact actions of drugs on men and animals. It is equally an admirable illustration of the legitimate use of experiments on living animals by which knowledge, important to human life and comfort, is obtained, that can be obtained in no other way. The empiricism of the past has left a rich legacy of clinical observation to the medical science of to-day; but in the long journey of the race, from Hippocrates to the nineteenth century, only scraps of exact knowledge of the modus operandi of drugs have been picked up. It will be the duty of the science of the future to supply this deficiency, and to build up, with slow and patient labor, an indestructible basis of exact knowledge, into which the precise relation of drugs to healthy and diseased structures and functions shall largely enter. In the performance of this task, science will derive a large amount of valuable assistance from the lower animals, from comparative experiment. Dr. Fraser, by his recent research into the mutual relations of physostigmia and atropia, has shown us how much can be done in this way; and in doing so, has made a valuable contribution to scientific medicine.

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* Writers of papers on therapeutics will greatly aid in the preparation of these semi-annual reports if they will forward copies of their contributions, addressed to this Journal.—Eds,

The antagonism of the physiological action of drugs has long been suspected, but never proved till recently. Medical journals of the past few years have made us familiar with the real or supposed antagonism of opium and belladonna. Dr. Norris tells us, in an excellent article upon the subject, that three centuries ago, in the year 1570, opium was given to remedy the ill effects of belladonna. Dr. Harley, in his late book on the Old Vegetable Neurotics, has shown that, though this antagonism exists, it is partial, not general, and cannot be relied on in the treatment of poisoning by either of these drugs. Antagonism has been suspected, and to some extent proved between the actions of atropia and Prussic acid; between those of strychnia and curara; of strychnia and bromide of potassium; of strychnia and chloroform; but in none of these instances has the extent and character of the antagonism been demonstrated. Dr. Fraser's laborious researches have shown that, between atropia and physostigmia, "the reality of a lethal antagonism may be readily and certainly established by experiment."

Rabbits and dogs, chiefly the former, were the subjects of the observer's experiments. The work was done in the Materia Medica Laboratory of the University of Edinburgh. Some idea of the amount of labor performed may be gathered from the statement that, in all, four hundred and ninety-two experiments were made. Only those who have undertaken investigations of the character we are considering can appreciate the amount and quality of the work which that statement implies.

The method of experimentation was alike simple and satisfactory. First, the minimum lethal dose for rabbits or dogs, as the case might be, of physostigmia and of atropia was determined by a series of preliminary experiments. This was done so accurately, that Dr. Fraser was able, by ascertaining the weight of an animal, to state in advance of experiment the precise minimum dose that would kill it. Having obtained this knowledge, the second step was to administer doses of physostigmia equal to minimum fatal ones, or in excess of them, and in combination with them to administer atropia. Thirdly, when recovery follows the administration of the agents together, the animal was allowed to recover completely from the effects of the experiment. As soon as complete recovery was established, the same dose of physostigmia that had previously been given with atropia, and from which the animal recovered, was repeated, but without atropia. In every such instance, the dose proved fatal. Such results warrant the conclusion of the observer, that, "therefore, when the administration of atropia prevented an otherwise fatal dose of physostigma from causing death, a perfect demonstration was obtained of the power of atropia to produce some physiological action or actions, that counteracted some otherwise lethal action or actions of physostigmia."

The experiments disclosed a number of interesting and instructive physiological facts. The minimum lethal dose of sulphate of atropia for rabbits was found to be 21 grains for every three pounds weight, or 7 grains per pound. Dogs are more susceptible to it than rabbits. Fifteen grains killed a dog weighing sixteen pounds—less than a grain to a pound. A man of the average weight of 150 pounds is most sensibly affected by $\frac{1}{30}$ of a grain, and would probably be killed by $\frac{1}{2}$ of a grain of sulphate of atropia. This makes a fatal dose for a human being $\frac{1}{300}$ of a grain per pound weight; and $\frac{1}{4500}$ of a grain per pound weight, a dose that produces most unequivocal effects. The scale of fatal doses is 7 grains per pound for rabbits, 1 grain per pound for dogs, and $\frac{1}{300}$ of a grain per pound for man. What a curious field for speculation and investigation these facts disclose. Rabbits do not tolerate physostigmia as they do atropia; the minimum lethal dose for them of the extract of physostigmia being 0·4 of a grain per pound weight, or 1·2 of a grain for a rabbit weighing three pounds. Another curious phenomenon is the range of counteraction. Atropia counteracts in rabbits the lethal action of physostigmia only within certain limits, both of dose and time. Not more than three and a half times the minimum lethal dose of the latter can be antagonized by the former; that is, a rabbit weighing three pounds will not be killed by a quantity of the extract of physostigmia varying from 1·2 grains to 3·5 grains, provided an appropriate amount of atropia is also administered. More than 3·5 grains cannot be antagonized. The limits of the counteracting doses vary slightly, as one agent is given simultaneously with the other, or five minutes before or five minutes after the other. In like manner, it was shown that if too little or too much atropia is given for a definite quantity of physostigmia, death will not be prevented. Thus, a quantity of the sulphate of atropia varying from $\frac{1}{20}$ of a grain to 3·3 grains will prevent the lethal action of three grains of extract of physostigma; but less than $\frac{1}{20}$ of a grain and more than 3·3 grains will not do so.

The range of time relation is not less curious or less important than that of doses. "The fatal effect of one and a half times the minimum lethal dose of physostigmia (3 grains of the extract) can be prevented by any dose between $\frac{1}{20}$ of a grain and $2\frac{1}{10}$ grains of sulphate of atropia, if it be administered within ten minutes afterwards; and by any dose between $\frac{3}{10}$ of a grain and one grain of sulphate of atropia, if it be administered within fifteen minutes afterwards." Beyond this interval, successful antagonism does not occur. Another fact, not less extraordinary than inexplicable at present, which Dr. Fraser's experiments have brought to light, is this: a non-fatal dose of physostigmia combined with, or rather given simultaneously with a non-fatal dose of atropia, will be fatal. This is very odd, when we remember that if the doses of the agents are increased a fatal result is prevented.

There are other curious phenomena, described in this monograph, which it would be pleasant to mention and discuss, but our space forbids it. We must refer the student of physiological therapeutics, who is interested in these most fascinating inquiries, to the original work. Its concluding paragraph forms an appropriate conclusion to this imperfect notice. Speaking of the way or mode by which atropia counteracts the lethal action of physostigmia, the author says: "In presence of the many obvious proofs to the contrary contained in this paper, I have considered it superfluous to enter into any discussion of the possibility of this counteraction being the result either of some chemical reaction between atropia and physostigmia, or of an increased rapidity in the elimination of the one substance produced by the action of the other. The conditions of the experiments, and the symptoms that were observed, render it certain that atropia prevents the fatal effect of a lethal dose of physostigmia by so influencing the functions of certain structures as to prevent such manifestations from being produced in them by physostigmia, as would result in death The one substance counteracts the action of the other; and the result is a physiological antagonism so remarkable and decided, that the fatal effect even of three and a half times the minimum lethal dose of physostigmia may be prevented by atropia. The existence of such an antagonism encourages the hope that the power of directly counteracting disease is far from unattainable, and it supplies a strong incentive to efforts designed to determine the conditions of disease and the actions of remedies with an exactitude sufficient to show how the remedial action may be applied as a counteracting influence to the diseased condition." E. H. Clarke.

Clinical Observations on the Dementia and the Hemiplegia of Syphilis. By M. H. Henry, M.D., New York: F. W Christern. 1872. Pp. 15.

This excellent little article is a reprint from the *American Journal of Syphilography and Dermatology* for January, 1872, and emanates from the prolific pen of the energetic editor of that journal. It comprises accounts of two interesting cases of disease of the brain originating in syphilis. In these days of Contagious Diseases Acts, our knowledge of the varied manifestations of the syphilitic poison should keep pace with the increasing general interest in the subject, and this knowledge can only be attained by careful study of honest and accurate clinical observations. We would particularly call attention to Dr. Henry's most just views with regard to very large doses of iodide of potassium. We are confident that many patients linger uncured for months, if not years, taking small doses of the drug the whole time and that without marked benefit, who might have been speedily restored to health by a bolder and more energetic course of treatment. W.

Fireside Science. By James R. Nichols, A.M., M.D. New York: Hurd & Houghton. 1872. Pp. 283.

This volume includes a series of popular scientific essays upon subjects connected with every-day life. Most of them have appeared before in the *Boston Journal of Chemistry.*

The book is another addition to a class of works whose aim is to interest the general reader, and at the same time to convey, in a popular form, scientific facts relating to subjects which are constantly brought before the notice of even those who claim to care nothing for anything scientific. There are, also, several chapters containing a great deal of information on subjects about which little is generally known; not, however, because the public feel no interest in the subjects alluded to, but because they are rarely to be found in books intended for popular use. The chapters on "The Lost Arts," "Diamonds and Diamond Cutting" and "Coal Mines," are sure to convey, in a small compass, many facts, both novel and interesting. The book is intended for non-scientific readers, and to all such we can recommend it as well deserving a place in their libraries. R.

Practical Lessons in the Nature and Treatment of the Contagious Diseases. By John Morgan, M.D., F.R.C.S., Surgeon to Mercers Hospital and to the Westmoreland Lock Hospital, Dublin; Professor of Surgical and Descriptive Anatomy, Royal College of Surgeons, Ireland, and member of Council, &c. &c. London: Baillière, Tindall & Cox. 1872. Pp. 335.

The *rôle* of the critic is not often spread with honey, and where an author is so—

> "Armed on with titles as Briareus armed"

so overwhelmed with honors as Tarpeia with bracelets, &c., or the Prussian Bureaucracy with red eagles of the third class, the critic feels a little like a mousing owl hawking at the eagle towering in his pride of *place.* Still, *Fiat Justitia, Magna est Veritas,* &c., and if any one wishes to inspect a thoroughly Hibernian, rambling, helter-skelter, ungrammatical, inconsistent and illogical exposition of the merits of the under dog in the syphilographical contest; a mass of non-objective observations of an apparently credulous inexperience plus a hodge podge of the defunct theories of the past and of the fœtal ones of the future, *ana*, *partes œquales;* wretchedly bound and full of misprints and other errors, we trust typopraphical; then, but not till then, would we commend this volume to his *leisure* hours. Otherwise, *cave canem*; avoid this (Irish) bull!

Rigby's Obstetric Memoranda. Fourth Edition, Revised and Enlarged. By Alfred Meadows, M.D. &c. Philadelphia: Lindsay & Blakiston. 1872. Pp. 104.

Memoranda of Poisons. By the late Thomas Hawkes Tanner, M.D., F.L.S. Third Edition. Philadelphia: Lindsay & Blakiston. 1872. Pp. 155.

If such miniature morsels in medical literature are ever commendable, these handbooks are certainly of the best. Both of them bear the names of very eminent authors, and the evident intention of these authors has been to give in these little works the largest amount of instruction in the fewest possible words. The titles of the books indicate the true character of the contents; the reader will find "things to be remembered," presented concisely and with a concentrated brevity which is unsatisfactory to the true student.

The practical utility of such books, while it stands as the excuse for their brevity, is still mythical. The obstetric student or practitioner would hardly be satisfied with the four little pages of instruction concerning the forceps; and the memoranda of poisons give nothing to be remembered which larger text-books have not already given, and which every student should have committed before he begins practice, while to the practitioner himself this small hand-book would hardly serve in an emergency, unless he took the precaution to have a copy of the book always with him for ready consultation in time of need.

Both books are good, but they are not good enough.

The Urine and its Derangements. By George Harley, M.D., F.R.S. &c. Philadelphia: Lindsay & Blakiston. 1872. Pp. 334.

Dr. Harley's book could hardly fail to interest the most casual reader. The style is original, direct, practical, often incisive and epigrammatic. Originally designed as lectures, the composition admits of a certain degree of dogmatic force, not ordinarily found in medical text-books, so that, at intervals, expressions are met with that would serve as medical aphorisms.

The method of the author is pleasing and to a certain degree original. After some general observations on the nature of urine, its composition as variously influenced by food, drink, medicine and disease, the individual elements of urine are examined in their chemical, physiological and pathological relations.

The latter half of the work is devoted to two topics, diabetes and albuminuria; and so fully and intelligently has the author discussed these important subjects in all their bearings that, by the general medical reader, these closing chapters will, we think, be deemed the most valuable portion of the book.

Dr. Harley has presented the important subjects of urinary physiology and pathology so well that one is tempted to overlook a few short-comings which grow out of the fact that the lectures, of which the book is a compilation, were delivered some years ago; and these points, which more recent investigations by chemists have improved upon, will undoubtedly be amended in future editions.

The book is published in the familiarly presentable style of the Philadelphia publishers, and is embellished with numerous wood-cuts. We miss the usual table of contents, an omission almost cancelled by a very full index.

Science Primers; Chemistry. By Prof. Roscoe, F.R.S.
Physics. By Prof. Balfour Stewart, F.R.S. New York: D. Appleton & Co. 1872. Pp. 103 and 135.

Two very neatly prepared little volumes in limp cloth in which the authors state the fundamental principles of their respective sciences in a manner suited to pupils of an early age. In fact, both books have a laudable object in view; less that of serving as text-books, but rather as leading strings to direct the youngest steps toward the great truths of science which they can more fully develope in maturer years. The names of the authors are a sufficient guaranty of the value of the books.

The Irritable Bladder; its Causes and Treatment: including a Practical View of Urinary Pathology, Deposits and Calculi. By Frederick James Gant, F.R.C.S. Third Edition, Revised and Enlarged. Philadelphia: Lindsay & Blakiston. 1872. Pp. 221.

Perhaps the author's observation in his preface, that the fact "that another edition of this treatise has been called for, long before he could find time to supply it, may be taken as a fair indication of its acceptance as a guide to a large class of diseases" is justified, but we have failed to discover the intrinsic attractions which could create such a gratifying demand for the book. The work appears to us, throughout, from its peculiar title to its final page, a continued disappointment. The author has collected a great amount of scientific information within this small volume, and much of it is, indeed, original and valuable; but the plan of the book is such that in its want of system it really fails of its purpose "to meet the requirements of all those who, whether as clinical students or being actively engaged in practice, may find it convenient to have at hand a ready guide." The student will not find here the systematic and concise teaching which he requires, and the "busy practitioner" can hardly feel gratified with a rhetorical style which, by its rambling obscurity, often conceals its meaning, and frequently needs second perusal to be clearly made out. As a book of reference, its value is compromised by the repeated digressions in some parts, and by unsatisfactory abridgment in others. Thus, nearly a fourth of the work is devoted to conditions having only the remotest connection with irritable bladder, such, for example, as the discussion of constitutional causes of local disease in general, the pathology of hysteria and so on, while the treatment of calculi is disposed of in eight pages.

The author states that he has purposely omitted illustrative cases, preferring to "*imperceptibly* express their results in rules and particulars of treatment," rather than extend his work.

The imprint of the book is English, and is, of course, excellent.

Among the sins of omission, is the absence of an index, a guide especially requisite in this book.

The Correct Principles of Treatment for Angular Curvature of the Spine. By Benj. Lee, A.M., M.D. Philadelphia: J. B. Lippincott & Co. 1872. Pp. 77.

This contribution to the pathology and treatment of disease of the spine is essentially the same in its general character as the monograph published some years since by Dr. Lee and at present out of print. It must be particularly gratifying to the author to state that he has been unable to improve in the slightest degree on the principles set forth in the first essay and only immaterially on their practical application. Such confidence must enable a writer to express himself with almost dogmatic authority; and we find that, after a full discussion of the pathological changes in the vertebræ which constitute the disease, the mechanical treatment for the redressing of distortion and the relief of pressure is comprised either under the form of antero-posterior support with the fulcrum of the apparatus adjusted over the oblique processes of the diseased bones, or as modified suspension whereby the extension of the spine is effected by making the weight of the patient's body the extending force, the point of departure of the power being a fixed point to which straps, adjusted to the chin and occiput, are attached.

The book is readable and instructive.

Clinical Charts. By Wm. W. Keen, M.D., Fellow of the College of Physicians of Philadelphia, &c. Published by Turner Hamilton, No. 106 South Tenth St., Philadelphia, Pa.

Diagrams in outline of the human form and subjacent skeleton, designed to furnish means for the "graphic delineation of diseases and injuries * * * useful in private practice and also especially in shortening the work of our busy hospital and clinical teachers and students. By means of them, the various physical signs in thoracic and abdominal diseases, relative measurements, deformities, fractures, tumors, cutaneous diseases and many cases of surgical disease, can be delineated in a moment."

Anyone who has attempted to keep current notes of his cases will appreciate the exact value of such charts. They will not supersede verbal descriptions and are not adapted to universal use; they may even grossly misrepresent, from differences in proportionate measurement of subject and chart. But, to save time during an examination, especially if afterwards used to point or accompany a verbal description, they are positively useful, and lead to a degree of accuracy of observation of location not cultivated by the mere habit of writing records. The separable parts measure 5½ x 3¼ inches, and can be trimmed to 4⅝ x 3; hence, can be—and this is essential—easily pasted into a common pocket record-book.

A chart for the respiration, pulse and temperature is included, but does not belong to the same category of usefulness. It is enough, moreover, to say of it that, without a degree of trouble fatal to its employment, respirations can be noted only by fives, pulses by tens and temperature by whole degrees, and that its month contains but twenty-five days! S.

Natatorial Hardihood.—An attempt has been recently made by an English professional swimmer to swim across the English Channel from Calais to Dover, forty miles, in ten hours. He remained in the water one hour and ten minutes and swam over seven miles, but then became so benumbed and prostrated by the low temperature of the water that he was obliged to abandon his attempt. The *Brit. Med. Journal,* in commenting upon this attempted feat, believes it to be impossible, unless some very ingenious artificial means is devised for keeping the heat of the body at its normal point.

Medical and Surgical Journal.

Boston: Thursday, September 26, 1872.

EXPERT TESTIMONY.

There is probably no position in the experience of a medical man more ungracious or more trying to his dignity and his good judgment than that to which he is sometimes summoned as an expert in legal trials. It tests his coolness, his firmness, his honesty and his moral and mental force as hardly another emergency in all his professional career is likely to. It demands of him unusual nicety of discrimination, extreme breadth of thought, and an impartiality as uncompromising as justice itself. It imposes on him the necessity of imparting what he knows in unusual and untechnical methods—*breviter, suaviter, caute.* It exacts all the accuracy of observation and of description which the ordinary witness to the facts must possess, and it superadds the demand for intuitive power and for deductive ability in the highest degree.

It is safe to assert that these conditions are practically never fulfilled on the part of medical men. On the contrary, medical expert witnesses, in the present order of things, generally accomplish little to forward the cause of justice, either through their impartiality, their mature judgment or their power of telling what they know so that others may also know it clearly. Scarcely a trial in the civil or the criminal courts occurs, requiring the assistance of a medical expert, that does not bring into unenviable notoriety, not the medical witness alone, but the medical profession which he represents. It is a scandal and a reproach to all decent physicians that, by the methods at present employed to fortify partisan interests in courts of law, the medical profession should allow itself to be so disreputably compelled to prop up one-sided justice. We need not cite a single case of all those which recently, in this country, have reflected such discredit on the profession, or specify in detail any of the notorious instances, on the one hand, of the absolute incompetency of expert testimony, so that innocent men are brought to the foot of the gallows to be saved from execution only "by the interposition of Providence"; or, on the other, of experts so partisan and so forgetful of their position that they make the witness-stand the vantage ground for the recrimination of their fellows and for the indulging of professional acrimony.

This state of things grows out of the ignorance of medical men in matters pertaining to medical jurisprudence, and out of a legal system which permits the employment of expert testimony in a partisan way, no matter how serious the issue at stake. It will continue until more systematic instruction is given in the medical schools in the practice of legal medicine, embracing technical study in the law as well as the medicine of the subject. It will more especially continue until some amendment is made in the prevailing system of summoning medical witnesses theoretically to testify as experts, but in reality to give opinions as medical advocates.

Many suggestions have been made at various times, with a view to correct this latter evil. Any one of the schemes appears an improvement on the present method of examining medical experts. One of these proposed methods is that all such witnesses shall be examined by the presiding judge, so that the testimony elicited should, at least, approximate to impartiality. Prof. Haughton, in his address before the recent Convention of the British Medical Association, urged the feasibility of a plan by which a medical expert is summoned for each side, and these two unite in the choice of a third neutral, so that all the medical testimony may be taken, or its merits determined, by the three, whose united opinion shall be authoritative. Still another method proposes the appointment of a medical expert-general, selected for acknowledged ability, and whose duty it shall be to give expert opinions in any case demanding such aid. His position would be allied to that of the judge, in point of impartiality and freedom from partisan motives; he should be as uncompromising as that officer and as far removed from the equivocal influences or the tempting collusions of either side in a case on trial. Such a position would be commensurate with the vast responsibility theoretically resting on the medical expert.

The time cannot too quickly come when, because of the distinctive character of medical expert testimony, involving as it does such peculiar knowledge and carrying such important weight in deciding the issues of legal trials, medical witnesses shall be excepted from the regulations and customs to which ordinary witnesses are subject.

A BOARD OF HEALTH FOR BOSTON.

It gives us very great pleasure to record the progress which has been made, in the last few weeks, toward the institution in this city of an independent and competent Board of Health. It is a reform about which, at present, there seems to be scarcely any difference of opinion. The daily press has not withheld the important influence it was able to exert on the public mind, and, as the result of the agitation growing out of the wretched administration of sanitary affairs the past season, the people have taken hold of the matter and, with a unanimity which cannot be misinterpreted, a new order of things is demanded immediately. The petition has been very numerously signed, the eagerness with which the popular demand is made attesting the importance of the measure proposed and an emphatic popular appreciation of the evils to be corrected.

It is especially noteworthy that the project for a Board of Health has received the most hearty approval of the medical profession in this city, and that the petition which has been circulated has been signed by physicians almost without a word of protest. They, of all people in the community, recognize the necessity for a radical change in the affairs pertaining to public health.

This universal call for such a change will inevitably be met very soon, since the present city government cannot well afford to let the opportunity pass; and the importance of an early organization of a new

Board is evident, in view of the unusual prevalence of smallpox in the city, imperatively requiring, as is shown by the communication of the City Physician to the Board of Aldermen the present week, immediate measures for the proper management of the epidemic, in order, also, that the winter months may be used for the initiation and perfecting of a system of sanitary administration for service next summer, without the defects and delays incident to novelty and inexperience. We have confidence that in the selection of the men who will comprise the new Board, a good portion of the efficient and expert strength of the body should be derived from the medical profession. In this belief, we trust not only that the best men in the profession, the men best fitted for the place may be chosen, but that the place itself may be made such that the best men may not find it to their disadvantage to accept it and its great responsibilities.

QUARANTINE IN RUSSIA.

The *Medical Times and Gazette* of Aug. 24th contains some editorial comments on the report of M. De Valcourt, who has recently been visiting the Russian sea-port cities with a view to inspect the practical operation of the quarantine rules in that country. The observations are so pertinent to the quarantine regulations in this country, and supplement so well the editorial notes on the subject which we made in the last number of the JOURNAL, that we are tempted to transcribe some of the more important conclusions.

M. De Valcourt reports particularly concerning Odessa, where cholera has recently prevailed with considerable severity. But in spite of the excellent quarantine arrangements made in times past, embracing costly buildings, well-ordered hospital accommodations and a numerous and well-paid force of attendants, the quarantine of inward-bound ships is practically abandoned because it has been found essentially useless; vessels having cholera on board are purified and the patients are removed to the quarantine hospital, but the ships are then allowed to proceed without further delay. Since 1870, the quarantine buildings have not been employed, except for the reception this year of four sailors, who died of cholera.

This virtual abandonment of the quarantine at Odessa grows out of some such state of things as was alluded to in our own observations. "While there are, on the average," it is remarked, "but thirty passengers who disembark at the port of Odessa, subject, if need be, to the rules of quarantine, fully four hundred arrive by rail, free to enter the city without any obstacle. Modern modes of communication render all systems of quarantine entirely illusory—the very persons who arrive most rapidly from the seat of contagion being those who are exempted!"

In conclusion, M. De Valcourt remarks, after stating that increased railway facilities across the Russian border will shortly bring the adjacent countries into close communication, with freer transportation of infection: "The rapidity of inter-communication and the large number of travellers render the isolation of centres of infection in Europe impossible. The quarantine system has seen its day; and it is now only urgent to insist, but that with redoubled vigilance, upon the adoption of hygienic measures in all centres of population."

* * *

OCCUPATION IN THE CAUSATION OF SKIN DISEASE.—Mr. Balmanno Squire, of London, an acknowledged authority on skin disease, affirms that the majority of the cases are found among book-binders, dyers, tanners, hatters, weavers, leather-cutters, fur-workers, all of whom have much to do with animal products.

THE REPORT OF THE BRITISH ARMY for 1870, the last published, states that of 38,408 recruits examined for the army during that year, 12,935 were rejected, a ratio of 336.7 per thousand. It also states in regard to the health of European soldiers in the Indian army, that for the whole number 55,380, in the service that year, there were 89,898 hospital admissions and 1,266 deaths, which is in the ratio of 1,623 admissions and 22.86 deaths per thousand.

The Month.

Canada Medical Association.—The annual convention of this body was held in Montreal, Sept. 11th and 12th inst. An address by the President, Dr. Sewill, of Quebec, was read, and the rest of the session was devoted to the presentation of papers on medical and scientific subjects, and to discussions. Among the important matters brought forward for the deliberation of the association, was the proposed Medical Act for the regulation of medical practice in the Dominion. St. John, N. B. was selected as the place of meeting for the next year.

A Bequest of 10,000 francs has been made by M. Falsch to the Academy of Medicine of Paris, for the purpose of founding a prize on mental and nervous diseases.

Among The Candidates who recently passed the anatomical examination at the university of Berlin, with especial approbation, was a Japanese student, a son of the private physician of the Mikado.

Dr. Schweinfurth, the renowned explorer of Central Africa, is about to make another expedition to that country in the especial interest of botany. His chief financial support is given him by his brother, a merchant of Riga.

The Sanitary Condition of the city of Berlin is at present very far from what it should be, and the city is very unhealthy. This state of things is owing partly to the situation of the city, built as it is on a level sandy plain, and partly to the overcrowding of the population due to its very rapid growth since the last war with France.

Death Certificates.—The loose way in which dispensary and hospital physicians give death certificates, has received a well-merited check in London. A physician there has been held in £300 bail for trial, for having given a death certificate for a patient, whom he saw for the first time after death. Many American physicians might take a seasonable hint from this.

A Useful Form of Disinfectant has been recently brought into use in England, namely, sawdust soaked in a saturated solution of carbolic acid. It is convenient for many purposes, cheap, easily prepared, and not liable to be swallowed accidentally, as ordinary liquid disinfectants are.

A Nut for Vital Statisticians.—During the recent strike of the scavengers of Edinburgh, the mortality of that city fell to 15 per 1000, far below the ordinary average.

A New Green Pigment, as brilliant as that made of arsenic, but free from its poisonous qualities, it is claimed can be made by mixing 20 parts oxide of zinc with 1 of sulphate of cobalt into a thin paste with water, and then exposed to a red heat.

Death Under Bichloride of Methylene.—A patient recently died at the Bath United Hospital while under the influence of the Bi-chloride of Methylene given for the purpose of reducing a dislocation of the shoulder. A post mortem showed the heart to be large and flabby, but not otherwise diseased.

Prof. Virchow has been chosen dean of the Medical Faculty in Berlin, and Prof. Gneist is the new Rector Magnificus.

Relation of Syphilis to Insanity.—Dr. Mildnen, director of the Lunatic Asylum in Klosternenberg, Austria, states that of 5,529 patients received at that institution during the period of fourteen years, in only seven cases, or 1. 2 per cent., could the occurrence of insanity be traced as due to syphilis.

Deaths Under Chloroform.—A patient recently died at the Manchester Royal Eye Hospital while chloroform was being administered previous to an intended operation for cataract. A post mortem showed a fatty heart.

Dr. Asa Wheat of Canaan, N. H., on Aug. 24th, 1872, gave his wife chloroform for the extraction of teeth; his brother, a dentist, had pulled three, when the patient became faint, and in spite of every effort made to revive her, died in a few moments.

German War Losses.—According to a statement prepared for the Statistical Congress at St. Petersburg, the German armies lost during the late Franco-German war, 40,881 by death. Of these, 17,527 fell in battle, 10,710 died of wounds, 316 died of accidents, and 30 by suicide. Dysentery carried off 2,000, typhus fever 6,595, gastric fever 159, small pox 261, inflammation of lungs 500, other acute diseases 521; phthisis 529, and other chronic diseases 249. Sudden death 94. Nature of death not given in 556 cases, and cause of death not stated in 419 cases. Number missing, 4,009.

Overcrowding.—According to the recent reports of some of the district medical officers in London, the overcrowding of the population in the tenement houses is something fearful. In one room in Whitechapel the amount of air allowed each person was only 54 cubic feet, and one woman in Westminster, who kept a low lodging house, stated that in three rooms she lodged no less than 92 persons.

The Administration of Insane Asylums.—This matter has had unusual prominence in the public mind during the past summer. The Bloomingdale Asylum case is fresh in every one's memory. Still more recently, the Ward's Island Insane Hospital of New York, has attained an unenviable notoriety as the scene of inhuman abuses on the part of a cruel attendant, whereby two of the patients lost their lives. It is not anticipated that any influence of the epidemic of asylum abuses will extend in this direction, but at a time when the matter of hospital superintendence is being so freely ventilated, no apology is deemed necessary for the following extracts from a very valuable work, a new edition of which has just appeared,—"The History of the Massachusetts General Hospital," by the late N. I. Bowditch, who was for a long time one of the trustees of the institution. The extracts are contained in the revisions made by the Rev. Dr. Ellis, and show some features in the management of the McLean asylum, which are of seasonable interest:—

So far as the method and practice of this asylum are concerned, it may be said that all of its successive superintendents, disapproving the use of drugs for subduing excited patients, and believing that a sole reliance upon the muscular force of the attendant would be either impracticable or otherwise objectionable, especially as being most irritating and offensive to the patients, have reduced the use of physical restraining appliances to the minimum.

A report made to a committee of the trustees by Dr. Jelly, on several subjects relating to the conduct of the asylum, shows a total of sixty-one out of two hundred and fifty-three persons who were under restraint either twenty-four hours, or one night at least, during 1871. "This includes all the habitual restraint. Occasionally a patient wears the camisole or mittens for an hour or two only, on account of some special outburst of violence, which is not mentioned in the records."

As to the restriction upon interviews with friends of the patients from outside the asylum, who might wish to see their condition and apartments, popular prejudices have often gone the length of assuming that our gentle and wise superintendents exercise the functions of those who have prisoners of State or convicts under their charge, with whom they can positively prohibit all intercourse. It is enough to say that no such prerogative is granted or exercised at the asylum to or by those who have the oversight of it. Recently, of the whole number of patients in the asylum—being 167—the friends of 142 of them could and did visit them at their pleasure. Of course the friends of the chronic demented very rarely wish to see them. Only twenty-five of the whole number of the patients were pronounced by the superintendent as in a condition to render visits from friends, for a time, unadvisable. In no single case and under no circumstances is the nearest friend or guardian, having personal rights, precluded from an interview with a patient, or prevented from removing him or her at pleasure. Of course there are cases in which, in the exercise of his judgment, and as a prime condition of qualification for his high trust, the superintendent will strongly advise, perhaps remonstrate, against allowing an interview between a patient and one who has a right to ask for it. . . .

As to the restriction upon the correspondence between patients and friends outside, there is misapprehension here, also, which is made to exaggerate popular prejudice. The figures on this point will be most satisfactory. On the 28th of May, 1872, there were in the McLean asylum, as patients, 77 males and 101 females, in all 178; of these, 53 males and 60 females, in all 113, never wish to write; 21 males and 34 females, in all 55, write when they wish, and receive letters,—more than half of these not having their correspondence subjected to any prudential oversight whatever. Of those from whom the means of correspondence are witheld there are but three males and seven females, in all ten. The restriction in these very few cases is imposed for one or both of the two very sufficient reasons, either that it would harm the patient for whom there is hope of cure, to yield to the excitement of putting delusions and fancies upon paper, or that the morbid communications which they might write would be misleading and harrowing to friends. Reasons there are also, in some of these cases, for leading the friends of patients to enjoin extreme caution on the officers of the asylum as to the exchange of letters with objectionable correspondents, while they are also earnestly desirous that no letters from the patients be written to themselves.

Medical Miscellany.

Dr. David P. Smith, of Springfield, has been appointed surgeon in the regular army, with the rank of lieutenant-colonel.

Mr. Poland, of Guy's Hospital, an eminent London surgeon, died Aug. 21st.

It is stated by the *Freeman's Journal* that Dublin is in the worst sanitary condition with the one exception of pure water, of any city in the British Empire.

The Advance of the Cholera.—New York specials from London state that there is no abatement to the spread of cholera in Roumania. The nature of the plague is epidemic in the extreme, and it is feared that it will spread over the entire country. Ten thousand have already died from the disease.

In North India, the cholera is making fearful ravages. In the Roman Catholic College at Agra, in five days, 82 boys were attacked, of whom 35 died. The disease also rages among the British troops in India.

Smallpox is decreasing in London. There were only 15 deaths from that disease for the week ending August 17th, which was less than for any week since October, 1870.

The Importation of preserved meat from Australia into England is assuming very great importance. In 1871, no less than 1,185,300 lbs. of this meat, valued at over $25,000,000, were imported, and it is believed that the amount will be at least trebled the present year.

The Next Meetings of the British Medical Association are to be held at Bradford, in September, 1873, and at Belfast, in 1874. Dr. Jas. P. Joule is the new President elect.

Artificial Eyes.—A French paper gives a detailed account of the manufacture of false eyes in Paris, from which the curious fact appears that the average sale per week of eyes intended for the human head amounts to 400. One of the leading dealers in this article carries on the business in a saloon of great magnificence; his servant has but one eye, and the effect of any of the eyes wanted by customers is conveniently tried in this servant's head, so that a customer can judge very readily as to the appearance it will produce in his own head. The charge is about $10 per eye. For the poor there are second-hand visual organs, which have been worn for a time and exchanged for new ones; they are sold at reduced prices, and quantities are sent off to India and the Sandwich Islands.

The British Med. Journal says that Mr. Holloway, of pill and ointment reputation, is about to erect at his own expense a middle class asylum at Virginia Water. The asylum will cost from £70,000 to £100,000, and will accommodate two hundred patients. It will be maintained for a year by Mr. Holloway, after which it is expected to be self-supporting, and will be handed over to the management of trustees.

Designs have been drawn for the new hospital to be erected in Worcester, which provide for a front of 296 feet, arranged with a centre building 60 by 62 feet, with a tower 14 feet high, and wings 60 by 152 feet, with towers 80 feet high, the whole costing $300,000.

Eight Children at a Birth.—On the 21st of August, Mrs. Timothy Bradlee, of Trumbull County, Ohio, gave birth to eight children—three girls and five boys. They are all living, and are healthy but quite small. Mr. Bradlee was married six years ago to Eunice Mowery, who weighed 273 pounds on the day of her marriage. She has given birth to two pairs of twins, and now eight more, making twelve children in six years. Mrs. Bradlee was a triplet, her mother and father being twins, and her grandmother the mother of five pairs of twins.

Mrs. Peter Charron, of Ware, died a few days ago, after twenty-six years of married life, during which time she had twenty-two children, all at single births.

Pamphlets Received.—Transactions of the Medical Society of the State of Pennsylvania at its twenty-third annual session, published by the society. Pp. 263.

Erratum.—On page 181, line 4, for "feels" read *falls*. On page 183, line 39, for "151" read 150.

Deaths in sixteen Cities and Towns of Massachusetts, for the week ending Sept. 14, 1872.

Cities and Towns.	*No. of Deaths.*
Boston	188
Charlestown	12
Worcester	29
Lowell	30
Milford	9
Chelsea	9
Cambridge	22
Salem	14
Lawrence	12
Springfield	8
Lynn	22
Fitchburg	3
Taunton	4
Newburyport	12
Somerville	11
Haverhill	6
	391

Prevalent Diseases.

Cholera Infantum	90
Consumption	44
Dysentery & Diarrhœa	30
Typhoid Fever	24

Seven deaths from smallpox occurred in Boston, and one in Charlestown.

George Derby, M.D.,
Secretary of State Board of Health.

Deaths in Boston for the week ending Saturday, September 21, 153. Males, 80; females, 73. Accident, 2 apoplexy, 1—aneurism, 1—bronchitis, 2—inflammation of the brain, 3—disease of the brain, 6—cyanosis, 1—cancer, 2—cholera infantum, 27—cerebro-spinal meningitis, 3—consumption, 26—convulsions, 2—debility, 3—diarrhœa, 9—dropsy, 3—dropsy of brain, 3—drowned 1 scarlet fever, 1—typhoid fever, 5—disease of the heart, 7—insanity, 1—intemperance, 2—disease of the kidneys, 2—disease of the liver, 2—congestion of the lungs, 1—inflammation of the lungs, 3—marasmus, 12—old age, 2—paralysis, 1—premature birth, 3—smallpox, 7—spina bifida, 1—spine disease, 1—tumor, 1—whooping cough, 3—unknown, 3.

Under 5 years of age, 80—between 5 and 20 years, 12—between 20 and 40 years, 25—between 40 and 60 years, 22—above 60 years, 14. Born in the United States, 112—Ireland, 28—other places, 13.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

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Original Communications.

RE-INTRODUCTION OF ETHER INTO ENGLAND.

By B. Joy Jeffries, M.D. Harv.

My student life in Europe in 1858–59 taught me that English and Continental surgeons were generally unacquainted with ether and its administration as an anæsthetic, to such an extent as to readily explain their adoption and continued use of chloroform, notwithstanding its frequent fatal effects. Hence, I have from that time thought it would be doing good service to show our medical brethren, the other side of the water, our method of giving ether, and thus, perhaps, give them the confidence in it which we have here in Boston, where it was first used and has never been superseded. I had opportunity of doing this during my recent visit to England to attend the meeting of the International Ophthalmological Congress in London, Aug. 1–3, 1872. This Congress was composed of some 130 delegates, from South and North America, Russia, Germany, Italy, Spain, France, Holland and Great Britain, many of whom, especially the London men, were not only ophthalmic but also general surgeons. As they gathered at the several hospitals to witness operations on the eye by their London confrères, I naturally had the best opportunity of exhibiting to a large number of those unacquainted with it, the administration of ether, and thus establish their confidence in it, not only by what I said, but by what they could see for themselves. The Ophthalmic Congress was opened by my reading a paper on the "Value of Ether in Ophthalmic Surgery," which was published, with the remarks it elicited, in the *Lancet* of Aug. 17th, 1872. I showed the ether I carried with me from Boston, and offered to administer it for any gentlemen who desired it given for their operations. This resulted in my exhibiting ether in the various hospitals seventeen times during my brief stay in London. I should have continued doing so, but I desired to leave some of the anæsthetic, as I did at Guy's and the Royal London Ophthalmic Hospital, in order that the surgical staff might use it for themselves as they saw me do. The editorial remarks in the same number of the *Lancet* explain when and where I gave ether and for what operations. They are as follows:—

"We print to-day a paper read by Dr. B. Joy Jeffries before the Ophthalmological Congress on the use of ether as an anæsthetic. The reaction that has set in in favor of ether during the last few years is very remarkable, and it will be seen that Dr. Jeffries claims for it an absolute immunity from danger to life. During his stay in London, Dr. Jeffries administered ether, on the 29th of July, at the London Hospital, while Mr. Hutchinson excised a knee-joint; on the 30th, at King's College Hospital, while Mr. Soelberg Wells performed iridectomy and operated for strabismus; on the 2d of August, at the Royal London Ophthalmic Hospital, during an iridectomy by Mr. Critchett, and a flap extraction by Mr. Bowman; on the same day, at St. George's, during a double iridectomy, a single iridectomy, and a double extraction of cataract, by Mr. Brudenell Carter; on the 5th of August, at the Royal London Ophthalmic, during a removal of prolapsed vitreous by Mr. Streatfield, and a strabismus operation by Mr. Hutchinson; on the same day, at Guy's, during a double iridectomy for glaucoma, and during the removal of a foreign body from the anterior chamber by Mr. Bader; on the 6th of August, at the Royal London Ophthalmic, during the extraction of cataract (two patients), an enucleation of the globe, and a strabismus operation by Mr. Critchett, and a flap extraction of cataract by Mr. Bowman.

"In all these cases, Dr. Jeffries administered the ether in the manner set forth in his paper, and saturated his towel with it with a freedom that at first sight seemed almost startling. In all the cases, the results were very good, and all the operators expressed themselves as being fully satisfied with the insensibility and muscular relaxation produced. If, indeed, it be true, as maintained by Dr. Jeffries, that the surgical use of ether cannot kill, it will have a strong claim to supersede chloroform alike in ophthalmic and in general surgery."

My experience in England, I mean what I saw and heard, proved conclusively to me that, whatever may have been the reasons in the past, at present, English and Continental surgeons do not use ether, principally because they are unacquainted with it, and rank it with chloroform, of which very many have a wholesome dread. Not being in any way an *etherist*, I mean as in England a *chloroformist*, I entered into no crusade against chloroform, but endeavored to show how simply and readily ether could be administered, and how perfectly harmless it was in any case where an anæsthetic was in place. It should be remembered that but very few of those who saw me give ether were not thoroughly convinced, from experience or otherwise, that ether was not a *practical anœsthetic*. I did not, and do not here, discuss the reasons for this. But I was as thoroughly determined to convince them through their own senses, to regard ether as I do. Truth will finally come out, and I foresaw the day when our English brethren, awakened to the danger of chloroform and the safety of ether, would naturally blame us Bostonians especially for not having enlightened them in spite of themselves. I found only incredulity to overcome in introducing ether into the London hospitals, and I will give the gentlemen there the credit of first, very properly, not believing till they had seen for themselves, and, secondly, frankly acknowledging they had not understood or appreciated ether as a *practical anœsthetic*. Before I left London its administration had been followed up as I taught them, and, of course, with the same success.

It is rather curious that the danger of chloroform had prevented ether having been properly administered. I mean that it was equally feared with chlorôform, and hence not enough given at once in the commencement. Public opinion and public ignorance greatly hamper medical men in England as elsewhere in the world. When I asked the object of measuring the chloroform used, I was told, with a smile, "for the benefit of the coroner's jury." This explained to me the looks and expressions of astonishment when I lavishly poured out ether on my towel cone, which I purposely did to prove there need be no fear of the anæsthetic, the important point being how much the patient got, not how much was in the sponge or other apparatus.

As may be well imagined, I had to answer many questions from the English and foreign gentlemen grouped about me. To the very frequent one as to relative expense, I replied by showing them that if ether was manufactured and sold only as cheaply as in the United States, and not wasted in administration, its cost was little if any above that of chloroform. Politeness, of course, prevented my adding what was naturally in my mind, namely, that probably any gentleman who had had one fatal case from chloroform would gladly deduct from his fee any difference in price of the anæsthetic to avoid another.

Till my audiences were convinced by their own observation, I was repeatedly questioned, with more or less of incredulity, as to the time required to etherize a patient ready for operation. This, I found, was universally thought to be so great as to practically exclude the anæsthetic in hospital practice, where in the amphitheatre perhaps a dozen operations must rapidly succeed each other, one surgeon waiting impatiently for the preceding one to finish. Now, in reality, when administering ether in London, the question of time never once entered my head, and I never hurried with the anæsthetic, yet several times I turned to the operator within fifty to one hundred seconds, and told them the patient was ready. In looking up at my audience, the comparison of watches amused me as much as it surprised them. I judge the question of time was pretty definitely answered.

As to the relative disagreeabilities of ether and chloroform I frankly told them I was not in position to judge, for I had never administered the latter and was not an etherist; in fact, we had, and needed none among us, since surgeons in America gave ether themselves when operating, or it was exhibited by a surgeon assisting, or by a medical student, experience having taught us that it was not a dangerous anæsthetic like chloroform. I saw there was evident surprise on finding, from inquiry, that I was simply an ophthalmic surgeon and not in any way an etherist, as they have chloroformists. It was a good argument in favor of ether.

My previous and recent experience both showed me there was a strong and firmly-rooted incredulity in England and on the

Continent as to the *practical* value of ether as an anæsthetic, and in England especially as to its safety as compared with chloroform. Now, with all due deference, I really feel that English surgeons are to blame for this. My only argument in proof will be to quote the words of Dr. Benjamin W. Richardson, at our last interview in London, which were, "Why, Doctor, I repeatedly told them, years ago, that ether was safer than chloroform."

In our talk at this interview over the relative value, &c. of the several anæsthetics, Dr. Richardson, in explanation, called my attention to what he had recently said and written, the subject being then quite fresh in his mind, as but the previous day he had spoken upon these very points before the "British Association" meeting at Brighton. I therefore take the liberty of quoting from his "Report on the Physiological Action of Organic Chemical Compounds" in 1871. He says:—

"I have taken occasion several times to observe the effect of narcotic vapors on the minute circulation of the blood. I prefer to use the term 'minute circulation' because it embraces the minute arterial and venous, as well as the capillary circulation.

"The first fact I would notice as common to the action of all vapors used is, that no obvious change in the physical character of the blood-corpuscles, red or white, was ever observable; neither was there any noticeable difference in the relationships of the red and white corpuscles to each other. The red corpuscles held their ways so long as there was motion in the centre of the blood-streams, while the white ones rolled along by the sides of vessels in the same manner as they did before the narcotism.

"Another fact common to the action of all the vapors used was, that the first sign of arrested movement of the circulation commenced in every case on the venous side of the circulation, and consisted of a sort of pulsation or to-and-fro movement of the current through the vein; soon upon this the venous current became obviously slower and the vein dilated, while the arterial current remained, often for a long time, unchanged.

"To sum up, if my observations be correct, the action on the systemic circulation of the narcotic vapors named was seen to be primarily on the venous current or, I should more correctly say, was primarily manifested in the retardation of the venous current, secondly in the capillary, and finally in the arterial current. During recovery, moreover, the return of a steady onward current was manifested in the veins before it was restored in the capillary channels. This order of events coincides purely with the order of phenomena of death under the influence of narcotic vapors, as observed both in man and the lower animals. It is, I think, the invariable fact that the right side of the heart in such fatal cases is the first to cease its action, and in animals, when the heart is exposed to the air soon after death, the right side is the first to recommence action. From these facts the inference, I think, is clear that the arrest of the circulation begins, during the narcotism, in the retardation of the venous current, secondly in the capillary, and lastly in the arterial current.

"The changes named above were common to the action of all the narcotics named; but there were some striking changes peculiar to the substances themselves to which I must refer. The peculiarities were traceable, as it seems to me, to the weight, the solubility, and the chemical composition of the substance that was employed to produce the narcotic state.

"When the substance was very light, of low boiling-point, and insoluble, the effect of arrest of the circulation was most rapidly developed, and at the same time was most rapidly removed. Thus hydramyle, the lightest, the first to boil on elevation of temperature, and the most insoluble, produced the quickest arrest of the venous current; but from its influence the animal was equally quick to recover, the general signs of recovery being secondary to the local return of the circulation.

"When the substance was light and of low boiling-point, but comparatively soluble in blood, the time required to produce the slowing of the venous circulation was prolonged after the insensibility of the animal was complete; after even respiration had stopped, the extreme changes in the circulation were slowly developed; and although the insensibility might be deep and continuous, like to death itself, the actual temporary arrest of the arterial current was imperfectly pronounced. Absolute ether, which has a very low specific weight (720) and a very low boiling point (94° F.), but which is soluble in blood to the extent of not less than eleven parts in the hundred, produced perfectly all the effects immediately named above. When the substance inhaled was comparatively heavier, of a higher boiling-point, insoluble, and contained as one of its elements an irritant, there was introduced a new phase, that is to say, the arterial vessels, as the animal came under the influence of the narcotic, were reduced in calibre. The changes of the circulation in this case were first marked in the retardation of the blood through the veins, then the vein increased in diameter, and there were signs of regurgitation of its blood; these indications were followed by what may be called irregular movements in the capillaries, and by reduction of calibre of the arteries. It was observed, nevertheless, that the narrowing of the arterial vessels, though well marked, was never so extreme as to prevent motion of the blood in them; that is to say, the degree of arterial contraction was limited. I consider this to be due to the circumstance that the animal had always ceased to breathe, and the further absorption of the narcotic vapor had consequently also ceased, by the time that the action of the vapor upon the arterial vessels was developed.

"During the period when the size of the arterial vessel was reduced, the motion of the blood in the capillary vessels fed by the arterial supply was modified; the blood flowing through the capillary channels moved less steadily, and was forced, if I may so express the fact, in pushes, as if there were intervals of relaxation of the arterial vessels during which the resistance to the impelling power of the heart slightly and slowly yielded. After a time the circulation of the blood through the artery became slower, the capillaries were left empty, the venous current ceased, and the condition of temporary suspension of all circulation, except slowly, in the arterial supervened. The effects here named were well marked from the action of the chlorides; they were seen under the influence of bichloride of methylene, they were still more definite under chloroform.

"The position then assumed, that the primary arrest of the column of blood during fatal narcotism is in the lesser circulation, we have to ask whether the arrest commences in the heart or in the lungs. The commonly accepted view has been that it commences in failure of the right side of the heart; but I incline to think that this view is incorrect, and that the positive source of failure is in the peripheral circulation of the lung. The vapor inhaled impresses, I think, *immediately* the minute circulation, and acts not by absorption into the blood, but by simple and instant contact with the minute pulmonary vessels, so that there is immediate resistance to the passage of blood through them. Three well-observed facts support this opinion:—1st, the fact already dwelt upon, that in cases of rapid death the lungs are emptied of blood; 2nd, that the arrest of the systemic circulation commences on the venous side of the circulation, and is attended with filling of the veins; 3d, that immediately after the death of the animal, if the chest be opened and the heart exposed, the right side of the heart, relieved of pressure, will immediately recommence to contract vigorously, showing that it is not itself paralyzed, but is restrained from action by mechanical resistance to its column of blood.

"If the theory of the action of narcotic vapors thus propounded be correct, we ought to draw from it this practical lesson, that in introducing new narcotic vapors into practice, the utmost care should be taken to select those only that are negative in respect to their action upon the vessels of the minute circulation. A gas or vapor that asphyxiates but does not irritate may be safer than a gas or vapor that does not asphyxiate and does irritate; for the former, when it kills, kills by a secondary process that is preceded by a series of symptoms foretelling the danger; while the latter, when it kills, kills often by instantly shutting off the column of blood that is making its way to the air, and by so oppressing the heart that every attempt at action, under the condition produced, increases the injury."

I would gladly add here but a single word as to the fatality of bichloride of methylene, now, according to Dr. Richardson's computation, as he himself told me, already administered some twenty to thirty thousand times. Had I most carefully sifted the hear-say reports which came to my ears while in London, I should have said there had been several, perhaps some eight or ten, deaths from this anæsthetic. Dr. Richardson, however, assured me there had been but *four* cases where methylene could be accused as the fatal cause, and these were not all, as he explained, quite satisfactory in proof. I cannot, however, from what I saw and heard, honestly turn from the use of ether to methylene, at any rate at present. It is to be earnestly hoped that such untiring study and investigations as Dr. Richardson's will not go unrewarded in the search for a *practical anæsthetic* free of the danger of chloroform and methylene and the disagreeabilities of these and of ether.

For years past, I have repeatedly heard many doubts expressed, even by medical men, except, of course, from those who had studied abroad, as to my statements in reference to the lack of acquaintance with ether on the part of European surgeons. Since my return this time, many persons, both in and out of the profession, have spoken with me on the subject, and still with such a tone of incredulity as to induce me to present these facts and explanations here, and describe what I saw and heard and have done. To the majority of people, it is incomprehensible that ether should not be used and understood in England and on the Continent as it is here, in New England especially. Their doubts would be fully satisfied had they seen, as I did, the astonishment and, I will add, acknowledged satisfaction of the medical gentlemen who witnessed my administration of this anæsthetic in London.

But there is a monitor stands at my elbow in the person of my friend the Autocrat's iconoclast, who, in a stage whisper, says, "Doctor, *cui bono?* Do you really believe you have accomplished anything? Will they at all use ether now in England in preference to chloroform?" This is a fair question, and I will answer it truthfully by saying I really cannot tell, time alone will decide. I may, at least, say that the title heading these brief and desultory remarks, "Re-introduction of Ether into England," was the expression used in reference to my efforts by one of the most distinguished medical men in London. If, also, *causa humanitatis*, medical men going abroad to study, would follow up what I have commenced, I believe chloroform, as an anæsthetic where ether could have been used, will be more dangerous to the physician than the patient.

At the commencement of the International Ophthalmological Congress, August 1st, 1872, I read the following on the value of ether in ophthalmic surgery:—

Every week gives us substantial proof of the fatality of chloroform in operative surgery. A certain degree of anxiety, therefore, must always be present in the operator's mind, from which he cannot free himself, even if an equally competent person administers the anæsthetic. If these propositions are not true, then there is no force in what I have here to say. I do not advocate the use of ether because I come from the city where its employment in surgery was discovered and promulgated, but because I believe that there are others like myself who do not desire to run the risk of killing a patient with chloroform, and who, perhaps, would gladly avail themselves of ether were they rendered as familiar with its administration and harmlessness as we are in America. Let me be clearly understood. I use and advocate ether because it is as effectual as chloroform, and not dangerous to life. I should not hesitate to use chloroform, though perhaps not so freely as ether, did the latter not exist. As we have ether, I do not feel justified in using chloroform, and never have done so. I should not unless forced to; therefore it is that I desire to induce others to familiarize themselves with the use of ether. I believe that those who now use chloroform exclusively, and who can never do it without danger to the patient, would employ ether did they understand how to do so. I would unhesitatingly say that I think this is largely the reason why ether is not made use of; and I opine there is some indefinable dread of it, caused by the fatality of chloroform, simply because ether is an anæsthetic. Now I desire to here say at once that I believe it is difficult to kill any one with ether, and that death never occurs accidentally while it is being inhaled. The accumulated evidence on this point is sufficient for me at least, as the accumulated evidence of the fatality of chloroform is sufficient to deter me from ever using it unless forced by necessity. That ether is more difficult to take. and to administer I recognize and appreciate as well as any one. I do not wish to be harsh with my medical brethren either at home or abroad, but I cannot but think that the disagreeabilities of ether induce some to run the risk of the use of chloroform, which may be fatal—when, who can foretell? I do not propose to enter into any discussion as to the action of ether, or the special methods of using it. I would, however, here say, that many of the diseagreeabilities of ether—nausea, vomiting, and headache—may be avoided or mitigated by the patients taking no, or but a light, supper the evening previous to the operation, and absolutely *no food whatever* the morning of the operation, which should, if possible, be done not later than 9 or 10 A.M. Ether, at the worst, is but a profound intoxication, and not unlike a drunken fit. On the other hand, thousands inhale it without trouble, as proved by their anxiety to take it a second time if necessary. A towel rolled into a cone, with a napkin or sponge pushed to the top of the inside, is all we need to pour our ether on, whilst our fingers can mould it over any mouth and nose. Some years ago I often heard in Europe medical gentlemen say, "But there are so many people who cannot take ether." I have yet to see one. The truth is, I believe, that surgeons who use chloroform are afraid of ether, and do not dare to give enough of it at once in the commencement. Now if the patient is warned that the ether will choke him, and told when this occurs to take long breaths to relieve it, and not to struggle and endeavor to push away the sponge, many will go to sleep quietly and without trouble to themselves or the surgeon. I have but one other point to speak of in reference to giving ether. When the patient, whether old or young, struggles, and asks for a respite and fresh air, do not yield· Hold them down by main force if necessary, and at any rate keep the sponge tight over the mouth and nose till they finally take long breaths and then soon go off into ether sleep. Doing this prevents their remembering anything about their struggles. It is absurd to stop the ether and try to reason with adults excited by the anæsthetic, and cruel not to push on quickly with children. This may sound almost puerile to my American brethren, but my personal experience tells me that those who use chloroform have somehow a sort of dread of ether, as if it was to be suddenly fatal, and hence fail to give a patient enough to intoxicate him quickly. This arises from lack of familiarity with its use and administration.

In ophthalmic surgery there are several special reasons for the employment of ether. In the first place, death during any other surgical operation might be allowed to pass without creating undue or severe comment, but no community would let pass without it a death occurring from any anæsthetic during the extraction of a cataract, an iridectomy, or the removal of the globe. A possible fatal result is not included in ophthalmic surgery. In my own community I should not care to have a patient die from chloroform under my hands, and be myself tried for manslaughter afterwards. The prosecuting attorney could put scores of surgeons on the stand, whose evidence to the jury would be unanimous that I might have employed ether, which is not fatal, and hence the responsibility of the fatality of chloroform rested entirely upon me. It would be an ugly case. Another argument for ether is that it leaves the mind of the ophthalmic surgeon entirely free from anxiety or thought of the anæsthetic. When the operation does not require him to have an assistant, he may dispense with one to administer the ether, and give it himself, as a little care will enable him to avoid benumbing his fingers with the cold, and any bystander can hold the sponge over the patient's mouth while he sleeps. I do not mean that an assistant is not a convenience, but that with ether we may dismiss thought for the patient's pulse, &c., since blueness of the face over which we are working tells us when to take off the sponge and when to re-apply it. Moreover, operations are very frequent in ophthalmic practice, and an assistant to whom we may commit the administration of chloroform is not always at hand or readily obtained, whilst the necessity for immediate operation may from various causes be very pressing. For myself, I find there are but few ophthalmic operations which I hesitate to undertake alone under ether, when compelled so to do. I do not find that medical gentlemen feel thus about chloroform. Here let me answer by *experience* the *theory* that ether will not act favorably in many ophthalmic operations, in consequence of the nausea and vomiting liable to follow its use. In the ophthalmic hospital with which I am connected, some fifty Graefe's extractions are annually done, almost always under ether, without the subsequent nausea or vomiting, provided this takes place at all, seeming to interfere with the usual course of the recovery or the final result. Some three hundred other operations are also performed under ether. We never use chloroform. I will say nothing here of the use of ether in the general hospitals of my own city, as I desire to confine my remarks to ophthalmic surgery, in which I consider ether a blessing to both surgeon and patient. Finally, I would sum up what I mean, and would here say that ether is never fatal in surgery, it can always be used in ophthalmic practice, as it does not interfere with the operation or its results, it allows the operator to work alone if compelled to, and free from thought of the patient's condition. I admit that it is not so pleasant to give or take as chloroform. With those who can administer this latter without anxiety, and can rest at peace with their own conscience and the community in which they live after a fatal case under their hands, my remarks can of course have no force, and for such they are not intended.

Mr. Brudenell Carter said: "I much regret, Sir, the absence from among us of a gentleman who, more than any other in London, is in the habit of administering ether—Mr. Warrington Hayward, the surgical registrar and chloroformist to St. George's Hospital. He has advocated very strongly the use of ether in general surgery, but his experience is, and I must say that mine entirely coincides with it, that ether as an anæsthetic agent does not produce sufficient muscular relaxation to fulfil all the requirements of the ophthalmic operator. As we have had it administered at St. George's Hospital, we have certainly found that the recti muscles have not been rendered passive in the degree that I should desire, and after some experience both Mr. Hayward and myself have determined to lay it aside, and return to our old and trusted friend chloroform, of which I must say we have no fear, and which we have never had any reason to regret using. It is with great deference that I venture to question the statement of Dr. Joy Jeffries about the safety of ether, but unless my memory plays me altogether false, there have been deaths from ether recorded in surgical history. I think that when anæsthetic agents were first introduced, and ether was the only one considered to be of any practical value, certain deaths did occur. I shall be grateful, Sir, if Dr. Jeffries will come to St. George's Hospital and administer ether for us, that we may see whether our past dissatisfaction with it may be in any way due to our faults of administration."

Dr. O'Leary observed that many differences in the effect of ether, when administered as an anæsthetic, were due to differences in the purity of the drug. He believed it to be a perfectly safe remedy, provided it be pure.

Mr. Jabez Hogg said that after much experience with various anæsthetics he preferred to operate without any anæsthetic. The resistance of the recti muscles was the best possible aid to extraction.

I replied, in answer to Mr. Carter, that a Medical Society in Boston appointed a committee some years ago to investigate all the reported cases of deaths by ether. That was done, and they could not find that any one of those reported deaths was due to the anæsthetic. When the muscles are too tense for the operation, I doubt if ether enough has been given.

* * *

Boldo.—This is the name of a new remedy which has been recently introduced into Europe. It is imported from Chili, where it is distilled from the leaves of a tree, of the genus *Monimiaceæ.* Its reputation appears to rest upon a pretty slender basis, and not upon the results of any trustworthy experiments. Thus far, it has been administered empirically for the more frequent affections of the liver. As in the case of *cundurango,* its use is most strongly recommended by charlatans, pecuniarily interested in its success, and like that drug, its popularity will probably be of very short duration.

Progress in Medicine.

REPORT ON OTOLOGY.

By J. Orne Green, M.D.

An Investigation concerning the Mechanism of the Ossicles of Hearing and the Membrane of the Round Window.—Burnett. (*Archives of Ophthalmology and Otology* vol ii., No. 2.)

Burnett has still further confirmed the theories of Ed. Weber and Helmholtz in regard to the mechanism of the ossicles of hearing, by some very exact experiments to determine the condition of the membrane of the round window during the conducting of waves of sound through these bones, and also to determine the effect of altered labyrinthine pressure upon the chain of bones and upon the membrane.

The preparations were made by removing the floor of the tympanum, leaving the membrana tympani, the ossicles and the labyrinth uninjured, and then placing them so that the movements of grains of starch, with which the parts were sprinkled, could be accurately examined and measured with a microscope.

The vibrations of different notes were then conducted against the membrana tympani, and the vibrations of the different ossicles and of the membrane of the round window observed. When the sound waves struck directly against the membrana tympani and the hammer, the ossicles and labyrinth responded to the vibration; but when the waves first struck the wall of the meatus, so as to be deflected, they were found to be destroyed, which seems to show that the bony walls of the auditory canal have no effect in conducting sound to the labyrinth. The excursions of the ossicles and of the membrane of the round window always bore a fixed relation to each other, and also to the pitch of the note, the longer excursion corresponding to the deeper note.

The experiments on labyrinthine pressure were made by opening one of the semicircular canals and attaching to this opening a column of water, the height of which could be varied, and it was found that when the pressure was increased or diminished beyond a certain point the excursions both of the ossicles and of the membrane of the round window ceased; sooner, however, during the occurrence of a high than of a low note. These experiments demonstrated a condition not unfrequently found in the human ear, in which low notes are heard distinctly, but higher ones not at all. Such cases have been considered by some authors to be affections of those ultimate fibres of the auditory nerve corresponding to the unheard note, but these results of Burnett's prove that they may be merely faulty conduction from abnormal labyrinthine pressure. Politzer has already demonstrated, by a series of experiments somewhat similar to those of Burnett (*Archiv. der Ohrenheilkunde*, vol. vi., p. 1), that any object attached to the ossicula diminishes the extent of their vibrations, but that this diminution is greater with low than with high notes, and, as he says, these results agree with what is seen in practice, namely, that pathological products on the ossicula, such as adhesions, anchyloses or clumps of mucus, allow the higher note to be better heard than the lower, a result the opposite of intra-labyrinthine pressure, as demonstrated by Burnett. Such experiments as these, to be confirmed and extended, are thus gradually evolving a means of diagnosis in some of the more obscure diseases of the ear.

The following deductions are drawn by Burnett from his experiments.

(1.) The excursions of the chain of ossicles of hearing bear a fixed relation to each other.

(2.) The excursions of the ossicles of hearing are communicated through the labyrinthine fluid to the membrane of the round window.

(3.) The excursion of the membrane of the round window generally equals that of the stapes, but it may equal that of the membrana tympani at the point of the manubrium mallei.

(4.) The pressure within the labyrinth, increased beyond certain limits, causes cessation of the action of the membrane of the round window and the chain of ossicles of hearing.

(5.) If the labyrinthine pressure is greatly diminished or totally removed, the chain of ossicles may continue to vibrate, but they exert no influence upon the membrane of the round window.

Further Experience in Paracentesis of the Membrana Tympani, with Remarks.—SCHWARTZE. (*Archiv. fur Ohrenheilkunde*, vol. vi., p. 3)

Paracentesis of the Tympanum.—GRUBER. (*Allg. Wiener Med. Zeitung.*)

In the second volume of the *Archiv. fur Ohrenheilkunde*, 1866, Schwartze published an article on paracentesis of the tympanum, in which he favored the operation in a large variety of cases, not only of acute but of chronic catarrh of the tympanum. A short time after, a brochure on the same subject appeared and had an extended circulation. These two works he now supplements by a third, giving the results of his experience after a number of years, "the intervening time appearing sufficient for us to be able to judge of the final result of the operation in a large number of cases," and in the table which he gives at the end of his paper only those cases are quoted which he has been able to examine several years after the operation. The object of the operation is the removal of the secretion which has formed within the cavity as the result of the inflammation of the mucous membrane, and which impedes the free vibration of the membranes and ossicula. The present article is a review of the opinions expressed in the two previous works, and it appears that an extended experience has changed these views but little.

The convex, sack-like projections of the membrana tympani, and the yellow, triangular reflex behind that membrane, which were described as the only appearances seen on examination when there was an abundant secretion in the tympanum, Schwartze now modifies, as subsequent observation has shown that the membrane is frequently drawn inward by a collection of fluid in the cavity, instead of being forced outward, especially when this fluid is very adhesive.

This latter or collapsed condition of the membrane is very frequent, and the experience of all would probably agree with that of Schwartze, that it is the most common appearance of the membrane when adhesive mucus is present.

Small atrophied spots of the membrana tympani may be forced outwards by air driven into the tube, and resemble the convex projection of the membrane from collections behind it; attention once called to the possibility of their occurrence would prevent their being mistaken for fluid by any one of experience.

Another condition liable to deceive is the circumscribed swelling which is sometimes found on membranes subacutely inflamed; the differential diagnosis is here very easy, for, with such inflamed membranes, the cutis is so swollen as to conceal the manubrium of the hammer. Schwartze says he found this circumscribed swelling especially in commencing tuberculosis; it is unaccompanied by pain and the only subjective symptoms are a feeling that the ear is stopped up and occasionally a pulsation in the ear; the injection and swelling of the cutis and membrana tympani are very marked, and the latter is of a yellowish red color; after several weeks, perforation of the membrane takes place, and its whole surface begins to suppurate. From the description given, it is impossible to think that Schwartze has anything more than one of the painless inflammations of the middle ear, which are seen in some severe general diseases, such as scarlet fever, and which might occur, although we have never seen it, without the general disease, especially in weak constitutions. Having observed exactly these same appearances in a severe case of scarlet fever, which resulted in the loss of both drum membranes, we cannot think that our author is justified in suggesting, as he does, a primary tuberculosis of the membrane.

The convex projections of the membrana tympani from fluid in the cavity, are *usually* associated with an enlargement of the radial bloodvessels of the cutis, and in some cases this congestion extends over the whole membrane, a condition described by older writers as pannus.

The most common appearance of the membrane, an abnormal concavity and a yellow reflex, with a line of demarkation and occasionally bubbles, Schwartze describes as other writers have done.

Attention is then called to a possible error in diagnosis, from an atrophied membrane being so collapsed against the bone that the yellowish reflex from the promontory resembles the reflex from a collection of fluid. In these cases, however, the reflex is seen in the centre and not at the lower part of the membrane, and the air-douche by separating the membrane from the bone removes the doubtful appearance.

Some cases in which fluid is present recover without an operation, from an improvement in the general health. The favorite German salt-baths Schwartze has used with benefit. If in chronic cases the improvement of the hearing does not last more than two or three days and then is lost completely again, he considers the paracentesis necessary, having found that in such cases a tedious treatment by other means produced but a temporary relief, while the operation, by thoroughly freeing the tympanum, gave a permanent cure.

In acute cases, the absolute necessity of the operation on the occurrence of dizziness, headache and vomiting is recognized, in order to diminish the danger of an extension of the inflammation to the brain. In scarlet fever and typhus the operation is urgently advised in the *beginning* of the inflammation, and likewise in certain cases of acute inflammation of the membrana tympani alone, as preferable to the superficial scarification recommended by Bonnafont and Gruber.

In regard to the character of the fluid, he had previously considered it serous in acute and muco-purulent in chronic tympanal catarrh, but a greater experience has shown him that the reverse may be and often is the case. In the majority of chronic cases he has found it purely mucus, very adhesive and transparent. Microscopically the secretion consists of mucus corpuscles in all stages of degeneration, with degenerated pavement epithelium, some fat and cholesterin. In 97 cases the secretion evacuated was serous 8, muco-serous 14, purely serous 67, muco-purulent 8 times. In bi-carbonate of soda the secretion remains unaltered for days, but in a 3-4 per cent. solution of caustic potash is rapidly dissolved.

For the operation, he still uses the lance-shaped needle recommended in his first work, preferring it to the modified Desmarres needle used by Troeltsch or the bayonet-shaped one of Lucæ. A cross cut he considers necessary only where the membrane is much thickened or where the secretion is very adhesive; suction by means of a Pravaz' syringe is not generally possible.

The accidents during the operation are unimportant and are enumerated as follows: vomiting, fainting, bleeding, injury of the wall of the labyrinth, difficulty of thoroughly clearing the tympanum on account of the adhesiveness of the secretion.

After the incision has been made the air-douche should be used, and this is sufficient, if the secretion is serous, to thoroughly evacuate it; if, however, it is thicker, suction by means of a Siegle's speculum can be tried, but it has generally been found necessary to force a stream of water through the whole ear, and thus wash it out. If both ears have been operated on, he injects lukewarm salt water rather forcibly into the nose, and a part of it runs out through the ears; if only one ear has been operated on, he accomplishes the same purpose by injecting through a catheter directly into the Eustachian tube. The method of washing out the tympanum proposed by Hinton, which we have used with most satisfactory results and prefer to all others, as more simple and less disagreeable to the patient, is not mentioned at all by Schwartze. It consists in inserting the nozzle of the syringe, air tight, into the meatus by means of a rubber cork, then slowly forcing the water through the Eustachian tube into the nose.

Where the membrana tympani is thin, the pain from the operation is often wanting; where the membrane is thick it may last for some hours. After the operation the ear should be closed, the patient kept quiet on restricted diet,and everything tending to congestion of the head and ear should be avoided. The air-douche should be repeated on the first and second day after the operation; usually, by the third day the incision is healed, but it may remain open much longer.

Inflammatory reaction after the operation, is rare, but in Schwartze's experience is more common than Troeltsch and Politzer have said: he has found it to a greater or less degree in 20 per cent. of all his cases, while Politzer has never seen it. It may be confined to the membrana tympani or may involve the meatus, auricle, and sometimes the whole tympanum. Polypoid granulations on the edges of the wound or the wall of the meatus may form and require removal and cauterization. The inflammation usually begins on the third day after the operation.

The second day after the operation, the ear should be manipulated as little as possible, but if, after the incision has healed, moist râles are still heard by auscultation, alkaline solutions should be injected to render the mucus more liquid in order that it may be absorbed, and the râles should disappear before treatment is given up. To prevent relapse, care should be taken that the Eustachian tube is permeable, and, if necessary, the naso-pharyngeal cavity and the tube should be treated by injections, and the general health attended to.

The greater the improvement after the air-douche, the better will be the result of the operation: if, however, there is no marked improvement, or the symptoms render a disease of the labyrinth probable, a perfect result can hardly be expected. Disease of the membrana tympani itself does not, however, necessarily, exclude a perfect result, as Schwartze has obtained such where the membrane was atrophied, and also in cases where it was thickened and at the same time relaxed: if, however, it is found thickened, tensely stretched and much drawn in, the improvement from the evacuation of the secretion is generally but slight. In chronic cases, the evacuation of the secretion is generally followed by immediate improvement in the hearing, but in acute cases we may have the opposite, the hearing being worse for a short time. Schwartze has found that these latter cases are apt to be of long duration.

Finally, the results of the operation in 100 individuals and 163 membranes are given, the majority of the patients having been seen and examined from four to six years after the operation. Of these 163 operations, 87 resulted in perfect cure, 56 were much improved, 15 slightly improved, and 5 not benefited at all. Of the 100 patients, 81 were under 20 years of age, and the duration of the disease, in all but 34, was more than a year. The duration of the treatment varied between eight days and four weeks. The operation required to be repeated in 43 cases.

Schwartze claims that the operation not only shortens the duration of the treatment, but that relapses are much less frequent than under the old treatment by means of the catheter and internal medication. In individuals predisposed to catarrhal diseases, relapses do, however, occur, and in some cases a permanent cure is impossible, especially in cachectic patients and in those with ulcerative rhinitis; these are, however, exceptional cases.

Thickening of the mucous membrane and abnormal adhesions in the conducting apparatus are much less common with the mucous secretion than with the serous exudation.

The article closes with a quotation from Velpeau (1839): "La perforation du tympan en est encore à prendre rang parmi les operations utiles et réglées de l'art de guérir."

Gruber agrees fully with Schwartze in the advisability of the operation for the removal of mucus or pus from the tympanum, both in chronic and acute cases, and in the case of purulent or hæmorrhagic exudations considers it as a true *indicatio vitalis* to diminish the risks of the inflammation extending to vital parts. In simple catarrh he recognizes the possibility of the absorption of even large collections, and would, therefore, not hasten the operation till other means of getting rid of the secretion had failed or threatening symptoms appeared.

He mentions, however, another and new indication for the operation in those cases in which a perforation has taken place on the anterior and lower quadrant of the membrane insufficient to thoroughly evacuate the tympanum, either from its small size or from the adhesiveness of the exudation. In these cases, the retained secretion is a direct irritation which not only prolongs the disease but is also liable to cause severe pain from the pressure on the inflamed membrana tympani. For the relief of this condition, Gruber proposes two courses, either to enlarge the natural perforation or to make a new opening in the posterior segment of the membrane at a considerable distance from the first perforation, and in performing the operation care should be taken to make the opening sufficiently large, and to leave as much membrane as possible between the natural and artificial openings, as experience has shown that the smaller this bridge of tissue the more difficult it is to obtain cicatrization.

Cases of inflammation and thrombosis of the transverse and petrosal sinuses with otitis media purulenta.—Schwartze [*Archiv f. Ohrenheilkunde.* Vol. vi. p. 3].

The diagnosis of thrombosis and phlebitis of the sinus transversalis, as the result of purulent otitis media, can only be made with certainty after pyæmic symptoms have set in. An unequal filling of the jugular veins, which was considered by Gerhard pathognomonic of the disease, is not considered of value by Schwartze, as in a case examined by him, in which the right jugular vein was enormously swollen, a large thrombus was found filling the right transverse and petrosal sinuses completely, while the sinuses of the opposite side were entirely free, a condition the opposite of what Gerhard would have expected. A painful œdema over the mastoid process, which Griesinger considered pathognomonic, is found so often, not only in caries of the bone, but also in all kinds of inflammation of the middle and outer ear, that this symptom cannot be considered of value.

Schwartze then gives the history of four cases, all of them associated with purulent inflammation of the tympanum, and in three of them he considers the inflammation of the sinus was the result of the otorrhœa: in only one of them was the disease of the sinus diagnosticated during life from the existence of pyæmic symptoms; in the others the symptoms were those of meningitis, the patients dying before the pyæmic symptoms appeared. In the first case, there was no caries of the bone, the inflammation apparently extending along the small veins of the bone from the mastoid cells to the sinus; in the other cases there was caries of some part of the tympanum.

In addition to the four cases by Schwartze, Dr. Stokes narrates a case in which there was likewise no caries of the bone. The symptoms were chiefly delirium and slight swelling behind the ear, which led him to perforate the mastoid cells, but no pus was evacuated. Death followed on the thirtieth day. In De Rossi's case there were pyæmic chills, with death in three weeks. The transverse sinus and upper end of the jugular vein were filled with purulent thrombi; there was also here no caries of the bone.

In a series of dissections previously reported by Wendt (Archiv für Heilkunde, xi.), he examined thirteen cases of disease of the brain associated with disease of the ear, and in six of them found a thrombus in the lateral sinus and in one a thrombus in the cavernous sinus. In one of these seven cases of thrombosis the disease of the sinus was caused by a tumor of the neck and was not connected with the ear-disease, in four of the cases the connection with the ear could, however, be distinctly traced, while in the other two cases it was highly probable, although not positively proven. Caries of the petrous bone existed in only five of the cases.

Remarks on Affections of Hearing in cases of Disease of the Nervous System. Hughlings-Jackson. [*Medical Times and Gazette,* July 13, 1872.]

Dr. Hughlings-Jackson, in a clinical lecture on deafness in nervous diseases, after calling attention to our imperfect knowledge of this field, remarks that in physicians' practice an excellent opportunity is afforded for the precise study of the various causes of such deafness by more accurately establishing the nature of the deafness during life and noting the appearances in the ear and its nerves post-mortem.

Dr. Jackson states that, excluding the cases of disease in the outer and middle ear, deafness is a rare complication of intra-cranial disease, much less common than optic neuritis. In no case has he ever seen deafness the result of adventitious products or of any disease of the cerebral hemispheres, meaning, apparently, when the disease was confined to the hemispheres, as immediately after he gives two cases in which deafness was a prominent symptom, one where a tumor was situated at the junction of the pons and medulla oblongata and another where a tumor extended from the sphenoidal fossa back to the auditory nerve. Thus deafness becomes in these cases a symptom by which the position of the disease may be located, while optic neuritis is of no value, as it may occur from a tumor, probably in any part of the encephalon, the adventitious product scarcely ever involving any part of the optic nervous system.

In both of the cases quoted above, the deafness was double, while but one nerve was involved, and Dr. Jackson is unable to give any explanation, as he has seen a tumor of the cerebellum producing deafness only on one side.

An auditory neuritis is as yet undetermined, but would probably depend on disease of the cerebellum ; but Vulpian states that trouble with the hearing is very rare in alterations of the cerebellum.

Dr. Jackson then calls attention to the association of epilepsy with disease of the tympanum and, although considering the connection between the two as uncertain, says that it is as important to inquire for this as for any other excentric causes. The irritability of nerve-tissue in epilepsy he thinks depends on different pathological processes, among others embolism and thrombosis, and hence in an epileptic patient he inquires for heart disease, rheumatism, scarlet fever, and also for discharge from the ear, as this may produce venous thrombosis ; the epileptiform seizure, he thinks, may depend not on reflex action from the ear disease but from the gross process of thrombosis. These facts, however, have never been confirmed by autopsy.

[To be concluded.]

Reports of Medical Societies.

NORFOLK DISTRICT MEDICAL SOCIETY.

The Society held its *quarterly meeting* at Hyde Park, on Wednesday, July 10th, the President, Dr. Jarvis, in the chair. The subject announced for consideration was "Medication in Disease."

Dr. Maynard, of Dedham, in opening the discussion, alluded to the common tendency to hasty generalization, premature conclusions being too often drawn from limited facts. This propensity to promulgate hypotheses, or theories constructed upon insufficient data, was, in fact, one of the greatest hindrances to the progress of true medical science.

He next illustrated the importance of obtaining a true knowledge of the natural course of disease uninterfered with by medication, affirming, in conclusion, that medication in disease is likely to be of value in proportion to our knowledge of disease without medication.

Dr. Maynard's paper appeared in full in the Journal for August 29th ult.

Dr. Monroe, of Medway, spoke of the very great advance that has of late years been made with regard to our knowledge of therapeutics, and showed how this increase of knowledge, in revealing the existence of former errors, had thrown a certain amount of discredit upon the regular profession, which has been augmented by a very extensive misapplication of drugs. Considering that too great doubt already prevailed with the public as to the utility of medication, he deemed it unwise, that any utterances of medical men should add to the prevailing scepticism. The medical journals of the day unite their testimony in favor of numerous drugs, while the question of the power of other agents is placed beyond a doubt by the physiological experiments of the most capable and trustworthy observers. He adhered to the opinion that certain diseases may be cut short by the administration of drugs. Diseases, for instance, of an inflammatory type may be shortened in duration by the administration of cathartics and emetics, as formerly employed. The fashion now prevailed, however, of avoiding, as far as possible, all active interference in disease. He was inclined to the belief that we had already gone too far in the direction of non-medication, and it was becoming more and more evident that public opinion among the profession, if not among the laity, was slowly reverting to former belief, and more in favor of active interference. It was this feeling of scepticism among the profession that had thrown so many patients into the hands of homœopaths, spiritualists and other uneducated practitioners. When a man has some trifling indisposition and seeks relief from his medical adviser, he is very apt to be put off with some indefinite, general directions as to rest and diet. With this advice, however, he is often far from satisfied. It is possible that his business affairs may demand his immediate attention, and he is convinced that, at least, an attempt might be made by the aid of some drug to alleviate his symptoms. Hence, it happens that in his anxiety to obtain relief, he too often falls into the clutches of the charlatan, fertile in expedients and dazzling in promises, and, although he derives no benefit, even from this source, he consoles himself with the idea that every effort has at least been put forth in his behalf.

Dr. Morison, of Quincy, referred to the unfortunate tendency of passing from one extreme to another in the practice of medicine, regardless of the truth expressed by the proverb, "*in medio tutissimus ibis.*" While our fathers administered their potions with no sparing hand, there existed at the present day a latent disposition to ignore the efficacy of medicines in the treatment of disease, and to trust chiefly to the conservative forces, or to the recuperative powers of nature. He spoke of the different means at our disposal for allaying speedily nearly all forms of pain, and thought, that if no other aid than this could be afforded by the physician, his office would be a noble one. We could remove affections dependent on parasites. He believed, moreover, that other morbid phenomena could be directly controlled by the proper use of drugs, although it was not always easy to explain the *modus operandi*.

Dr. Salisbury, of Brookline, said that with regard to certain diseases of the inflammatory type, such as pneumonia, their natural course had already been studied, and was perfectly understood, and experience had shown that when such cases were properly treated the amount of suffering was lessened, and the duration of the illness shortened, and he therefore failed to see how a physician, in view of these facts, could conscientiously leave a patient without medication.

Dr. Tucker, of Stoughton, remarked that an extensive experience of above forty years, had tended to strengthen his confidence in the power of most drugs; at the same time he was conscious that there might arise an over-confidence in the power of medicine, which would very naturally result in a tendency to over-medication. In this way, he was willing to admit, evil had been done, more especially, perhaps, in the over dosing of young children. He enumerated finally the advantages to be derived from venesection, endorsing fully the views of Dr. H. I. Bowditch on this subject, as expressed in a paper read some time ago before the Massachuetts Medical Society.

Dr. Cotting, of Roxbury, expressed the conviction that the continued tendency of the time was to administer drugs where no beneficial effect could reasonably be expected from any medicinal agent. This was an evil greatly to be deprecated, the responsibility of which should be shared equally by the public and the profession. When a physician is summoned to the bedside, whatever may be the ailment, a counteracting medicine is confidently expected by the patient, and this idea is tacitly acquiesced in by the physician. The sufferer had perchance experienced, previously, the power of opium in allaying pain, and he is allowed to believe that analogous effects can be produced by other drugs in the way of breaking up and eliminating disease, just as intermittent fever is supposed to be broken up by quinine. A great good would be accomplished, if this idea could be eradicated from the minds of the profession as well as of the public, for no greater obstacle existed to real advance in the science of therapeutics. The idea, then, should be inculcated that the province of the physician in the sick chamber is not to open an immediate attack upon some hypothetical *materies morbi*, but rather to put the patient in the best possible condition for enduring his disease, if it must run its course; or otherwise, by regulating his diet and surroundings, to protect him from the concomitant dangers of his illness, just as the pilot, in the descent of the St. Lawrence, keeps the craft clear from the sunken rocks; in fact, to give him the best treatment his disease and his situation admits of, without trying any hazardous experiment *(anceps remedium)* for the sake of seeming to do something.

It should be borne in mind that few, if any, of the vaunted specifics had stood the test of time. As to cinchona, or its active principle quinine, which had been referred to by previous speakers, it was not an unmixed good, even as commonly exhibited in intermittent fever by some experienced physicians. This disease had been successfully treated long before the discovery of cinchona, and even now recoveries were made without resort to this drug. It almost seemed to him, at times, as if it might have been better if cinchona were never known, so much false argument has been based upon its reputed effects in fever and ague, to the great injury of the sick in other affections. He remembered, moreover, to have heard it stated by an eminent physician in a malarious district that some of the most obstinate forms of disease which had come under his observation were cases of what he called *quininitis*, or that condition of nervous prostration and disorder induced by over-doses of quinine; and analogous results had been observed in other localities from the heroic doses of mercury and jalap administered in epidemics of yellow fever. Another source of error had its origin in comparisons drawn from the effects of animal and vegetable parasites upon the human body, and the occasional speedy removal of these effects by the destruction of the parasites. This subject, however, should be considered as pertaining to natural history rather than to pathology; and as to the disturbances produced by the presence of parasites, these should be likened rather to the results of injuries, such as perforations, abrasions or burns.

The effects of human parasites are very rarely fatal, nor do they of necessity produce any serious results. Although in individual cases for the most part readily destroyed, their continuance has been very carefully provided for in nature, and there was no probability that any single species would ever be entirely extinguished by human means. Dr. Cotting spoke of that form of delusion commonly known as homœopathy, the spread of which had been alluded to as surprising, and quoted the assertion of a well-known professor, made, by the way, before its appearance hereabouts, that one-fourth of the practice of any given locality would, ordinarily, gravitate toward irregular practitioners. He had previously shown that in this vicinity, in recent years, less than one-sixth of the practice had been in this way diverted. When homœopathy was first introduced into this region, Dr. C. (then a student) had compared results with a fellow-student inclined to that persuasion, and demonstrated, by actual trial, that just as favorable effects could be produced by the use of colored water as with the best imported German pellets, and in this way had the satisfaction of convincing his friend of his error. As to the prevalence of homœopathy, that had by no means attracted so many followers as did Thompsonism thirty years ago, when entire communities, especially in country places, appeared to be carried away by that delusion, so that educated physicians in such localities were, for the time being, almost driven from the field. The present popular delusion is now on the wane, its fundamental theories having been already abandoned by its former supporters, so that those who nominally practise in accordance with its tenets are found in point of fact to rely, in emergencies, upon ordinary drugs, given in effective doses. The coming practitioner of the regular school need not concern himself with regard to this form of quackery, which will soon disappear, but to arise, however, in some new guise.

It is important in speaking of diseases, not to be led astray by imperfect nomenclature. Some affections, such for instance as *cholera-morbus* (often confounded with sporadic cholera), should be regarded, not so much in the light of diseases, but rather as disorders :—efforts, perhaps, on the part of the stomach and bowels to dislodge ingesta too crude for assimilation, or, in a disordered state of the bowels, too burdensome to be retained. In such cases, emetics and cathartics might certainly be of use, to assist in expelling offending matters. Dr. C. insisted, however, in concluding, that the educated practitioner should strenuously resist that outside pressure, which demands under all circumstances a *recipe*. Nor did this idea involve any real distrust of the power of drugs. It required simply, that the physician should be allowed to decide whether, or not, the administration of a medicine was necessary; and should, moreover, be permitted to withhold all drugs, without danger of aspersion, in cases where, in his judgment, no actual service can be rendered by their use. It was to be feared that a popular failing in this respect had caused not a few to confound the meaning of the terms recovery and cure. At all events, a physician in attendance should have an undisturbed positive, not a negative direction of the case; should withhold or energetically put in force known resources of his science and art; should guide, and not be led.

Dr. Amory, of Brookline, thought it was a mistake to suppose that the peculiar effects of a drug could be exerted in disease, and not in health. This error arose from a general misapprehension, or ignorance, of the physiological action of drugs, that is, their effect upon the various organs of the body, and on their functions, as ascertained from experiments upon animals, as well as upon the human body. It was by this means that we had arrived at a satisfactory method of determining the indications for the use of bromide of potash in a certain class of lesions of the nervous system, connected probably with a determination of blood to the minute bloodvessels.

He considered it important to bear in mind that the term "medication" is not to be limited to the mere exhibition of drugs, but must include, also, whatever tends to produce any actual change in the condition of the patient, such, for instance, as the purifying of the atmosphere and regulating the temperature of the sick room, making external applications, &c. This fact is illustrated by the very decided effect sometimes produced by simply reducing the temperature of the body, a principle which has been successfully applied by Niemeyer to the treatment of scarlatina by the application of wet sheets. "Medication," then, should properly include all that is done to relieve the patient. He maintained that the physician should be cautious about prescribing drugs, the physiological effects of which are not clearly understood. An exact knowledge of the physiological action of each drug, combined with a familiarity with the organic and functional disturbance accompanying each disease, will furnish the sound practitioner with the best guide to rational medication. It was a neglect of this principle that had led to so much empiricism. Dr. Amory criticized a recent assertion of Rev. Dr. Hedge, at the last annual dinner of the Society, to the effect that medical men were very largely indebted to empiricism, especially in the department of therapeutics. He quoted the definition of the word "empiricism" as given by Webster, showing that it implied an absolute ignorance of pathology, and demonstrated that our advance in the knowledge of disease and treatment, was the direct result of the observations and experiments of men like Bernard, and could not with propriety be ascribed to the result of empiricism in any form.

The President, Dr. Jarvis, in closing the debate, adverted to the wide difference of opinion prevailing among medical men as regards the therapeutic virtues of medicinal agents. The only rational course left, therefore, to the honest physician, was to "prove all things, and hold fast to that which is good." The whole past history of materia medica is replete with the story of the rise and fall of individual drugs. Each separate drug had its turn of being held in high esteem, and gradually falling into disuse. He expressed the hope and belief that with the advance now being made in our knowledge of materia medica, the time would soon come when the popularity of each drug would depend, not upon an indiscriminating, empirical belief in its curative effects, but would rest rather upon the firmer basis of scientific experiment and clinical observation.

Dr. S. E. Stone, of Walpole, read a paper on "Medication in Insanity," which appeared in this Journal for Sept. 26th ult.

Dr. Campbell reported a fatal case of narcotism in a child fourteen days old, probably induced by a dose of chloral and morphia administered to the mother. This paper was published in this Journal Aug. 15th ult.

Dr. Williams, of Roxbury, read a paper entitled, "Normal Distortion of the Pelvis," which appeared in this Journal Sept. 12th ult.

The President gave notice, that the subject selected for discussion at the next quarterly meeting was "Lung Diseases in Infancy."

Medical and Surgical Journal.

Boston: Thursday, October 3, 1872.

ETHER IN A NEW LIGHT IN ENGLAND.

From our recent correspondence with English medical men, we have learned pretty conclusively that anæsthesia by the inhalation of ether as practised by us in America is not fully understood by them, and that, to this cause, perhaps, more than to any other, is due the dissatisfaction felt by them while employing it; that their complaints of insufficient relaxation of the muscular system and but partial insensibility can be explained only by their want of knowledge; and we are convinced that, when these objections are removed, a reversal of opinion will take place and ether be more freely used across the water.

The subject has been so thoroughly discussed in America during the past twenty-five years, that no new ideas can be advanced; but, as an episode in the history of anæsthesia and an important one, as we believe, we call attention to the article of Dr. Jeffries in this number of the Journal. In this he refers to the state of feeling existing in England regarding the use of ether, and relates his own experience in "re-introducing" etherization to the most eminent surgeons in London. If the course taken by Dr. Jeffries brings about the result which might naturally be expected, he certainly has conferred a boon on our English brethren and their patients.

Ever since the introduction of ether, this Journal has maintained the statement, confirmed by the most eminent men of the profession, that, in the legitimate use of ether by inhalation, no bona fide case of death is on record or has ever taken place; that it is, therefore, whether given for a brief space of time or for days together, *absolutely safe*, while the deaths from chloroform are numbered by hundreds, the latter agent killing stout, healthy patients *without warning*—killing as lightning does, by a special shock peculiar to itself. The delay caused in bringing the patient under ether is constantly advanced as an argument against its use; but every one knows that from three to six minutes is a fair time in which to attain full anæsthesia and relaxation of the muscles, and chloroform can do no better. The nausea, headache and vomiting charged to it are simply accidents which do not occur in *our* patients, simply because we take means to avoid them. The inability to obtain full insensibility is a myth of English surgeons, which Dr. Jeffries has taken means to dispel; and, beside these, the most ardent opponent of ether can advance but a few trifling objections to its use. To our mind, however, one argument alone should satisfy every conscientious man and should govern his action—*chloroform is dangerous, ether is safe.*

The whole difficulty experienced by the English is solved simply by saying that they have not, hitherto, understood how to use ether—or rather that they have constantly ascribed to ether the same dangerous effects they have so widely feared in chloroform, and have administered the former as they have been accustomed to give the latter. To give ether on a thin cloth, *guttatim,* with a free admixture of air, to remove the towel on the struggle which announces the first stage of anæsthesia, to manifest a dread of the stertorous breathing, and other signs of full etherization—this we know to be the custom of English surgeons; but their custom is not ours, and if Dr. Jeffries has impressed on their minds the true use of ether by his practical demonstrations, he has, without doubt, paved the way to its speedy use in England in place of chloroform.

Deaths from Chloroform.—In furtherance of our plan to note statistically the deaths from the use of chloroform recorded by our contemporaries, we give below a list of those noticed during the present year. In our previous lists we have reported twenty-nine cases.

30.—Reported by Dr. Ira Perry, Assistant Surgeon 9th U. S. C. T. *Circ. No.* 3, *S. G. O.*, 1871. Male, aged 20. Excision of portions of femur.

31.—*Brit. Med. Jour.*, Nov. 25, 1871. Male, aged 33. Amputation of toes.

32.—Dr. Pirrie, *Brit. Med. Jour.*, July 29, 1871. Male, aged 37. Operation for hernia.

33.—*Brit. Med. Jour.*, Dec. 2, 1871. Male, aged 53. Amputation of toe.

34.—Dr. Muscroft. *Cincinnati Lancet and Observer*, January, 1872. Male. Reduction of dislocation at elbow.

35.—J. Priestley Smith, Birmingham Eye Hospital, *Brit. Med. Jour.*, April 6, 1872. Male, aged 26. Operation for iridectomy.

36–7.—Dr. Von Köpl, *Sitsungs Bericht des Vereins der Aerzte in Steyermark*, 1871. Two cases.

38–9.—Dr. Körner, *ibidem*, two cases.

In-growing Toe-nail.—Dr. Stillwell, of Epsom (*British Medical Journal,* July 13th ult.), says that for the removal of this affection, his "invariable mode of proceeding has been to find the edge of the nail with a probe, and then to remove the granulations and hypertrophied cellular tissue, on both sides, if requisite. In no case have I been disappointed, or ever had to treat the patient for the return of this grievous complaint."

This mode of treatment, though differing in the principles on which it is founded, is not very unlike that for a long time resorted to by one of our neighbors, who has repeatedly reported his cases to various societies. An account of his operation may be found in the Journal for May 24th, 1866. In both these operations the necessity of "the un-scientific, cruel operation of tearing out the nail," as practised by Dupuytren, is unnecessary. A paper on the subject was promised us some time ago, and we hope soon to receive it. Though not a vital complaint, it has often proved exceedingly troublesome, to both operator and patient.

The Prussian Government publicly calls attention to the presence of trichinæ in hams imported via Bremen from the United States, warning purchasers to abstain from them, and threatening the sellers with criminal proceedings.

From Continental Journals.

Hypertrophy of the Tongue.—Dr. G. Maas reports that five cases of hypertrophy of the tongue have occurred during the past year in the surgical clinique at Breslau. The enlargement was in each case congenital, sometimes involving the entire organ, at others being limited to a lateral half. The part affected was in each case removed by means of the galvano-caustic ligature. The microscopical examination of the removed part showed that in one instance (that of a child two months old), the enlargement was the result of simple hyperplasia of all the textures of the tongue. In three other cases there was found to be a new formation of connective tissue and bloodvessels, so that the tongue was enveloped in a spongy, cavernous mass. This formation of new texture had attained the greatest magnitude in the case of a patient twenty-one years old, and was the least marked in the case of a child three years old. The writer concludes, that hypertrophy of the tongue begins always with simple hyperplasia, to which is afterwards added, as a secondary lesion, an increased development of the connective tissue and bloodvessels, this abnormal growth being stimulated by the pressure the enlarged organ receives from the surrounding parts, the pressure being so great in some instances as to force it from the mouth.

[*Note.* Hypertrophy was the term formerly employed to indicate any abnormal enlargement of the body. The distinction indicated by the term *hyperplasia* was first made by Virchow, to represent any abnormal enlargement arising from an increase in the number of the original elements. "Hypertrophy" was then limited to that form of enlargement depending upon the increase in the size of the primary elements, such, for instance, as is seen in the pregnant uterus.]

Anchylosis of the Lower Jaw; Recovery through the Formation of a False Joint on both sides.—This case occurred in the same clinique as the preceding. The patient was twenty-seven years old, and was affected with complete anchylosis of the jaw, the result of an inflammation following scarlet fever. The growth of both upper and lower jaw was appreciably retarded, in consequence of continued disuse. Perfect relief was afforded by an operation, which consisted in removing a wedge-shaped portion of the lower jaw, the base of which pointed downwards. At the time of the report, four months after the operation, the motion of the jaw was completely restored. (*Arch. f. Klin. Chirurgie*, xiii. *B.* 3 *H.*)

The Relation of the Chorda Tympani to the Auditory Nerves.—It is well known that when the electric current is applied to the tympanum of the ear, a peculiar sensation is experienced along the border of the tongue, and if the irritation is increased, it may be felt as far as the extremity of that organ. A similar effect may be produced by the application of very warm or very cold liquids to the tympanum, or by irritating a certain portion of that organ in any way. In other instances, the irritation of the tympanum produces a taste in the mouth like that of copper. M. Duchesne, and later M. Philipeaux, of Lyons, have called attention to this phenomenon, as being an important physiological sign, which would enable the aurist to determine in cases of deafness the degree of sensibility of the nerves of hearing. M. Bonnafort, at a meeting of the *Academie de Medicine*, held July 16th, 1872 *(Le Mouvement Medical*, Aug. 10, 1872), demonstrated that this phenomenon possesses really no clinical value whatever, and cannot, therefore, be employed, like the tuning fork or watch, in determining the degree of sensibility of the auditory nerves. This will be understood by referring to the anatomical relations of the several organs. He showed that the sensation experienced in the tongue is the result of the irritation applied to the chorda tympani, which is thence transmitted to the hypoglossus by means of the anastomosis which unites those two nerves, whereas, no communication has yet been discovered between the auditory nerves and the chorda tympani. The chorda tympani may be completely destroyed, and the tongue absolutely insensible to any application of the electric current, and yet the sensibility of the auditory nerves is not diminished, and, vice versâ, the auditory nerves may be completely paralyzed without interfering with the sensation in the tongue transmitted in the above manner from the tympanum. There is no reason to suppose, then, that the irritation of the chorda tympani can produce any appreciable effect upon the auditory nerves.

Sea Bathing.—Dr. F. W. Beneke, of Marburg, has contributed a series of articles to the *Berliner Klin. Wochenschrift*, enumerating the advantages to be derived from a visit to some of the principal seashore resorts of England and the North sea. He gives his own experience at these places, and furnishes some useful hints upon the influence of sea air and sea bathing. These effects, it is shown, differ very essentially, according to the locality of the shore, and the season of the year. For patients suffering from general debility, whether inherited or acquired, he recommends the invigorating autumn air of southern England. The beneficial influence of this atmosphere shows its effects in most patients by the marked increase of appetite and bodily weight, and the enjoyment of a natural, refreshing sleep. These resorts are likewise recommended for scrofulous children; for those having a disposition to tubercular affections; for women reduced by repeated child-bearing and long continued nursing, as well as for those debilitated by overwork. The desired improvement must not be expected, however, within a fortnight or three weeks. The more deeply seated the constitutional affection, by so much longer must the sojourn at the seashore be extended, so that many should remain there months, where they now limit their stay to weeks. If sea bathing is also resorted to, it must be borne in mind that this is a much more powerful therapeutic agent, and should therefore be indulged in by invalids only under certain limitations, and with the sanction of a competent adviser. Many would derive greater benefit if they would content themselves with trusting to the sea air alone, without venturing into the water. Others neutralize the effect of sea air and bathing, by subjecting themselves to the additional fatigue of a long daily walk, and go away weaker, perhaps, than when they arrived. Where the invalid expects to add to his stock of physical strength, he cannot afford to make an injudicious use of the power which is still left him. Those alone can hope to derive benefit from the bath, whose nervous system is still strong enough to react after the vigorous shock which accompanies immersion. It is also important that the digestive apparatus should be in such a condition as to enable the patient to respond with safety to the increased demands of his appetite. Finally, those alone should indulge in the sea bath, whose sleep is rendered thereby deep and natural, and not made short and broken. The propriety of continuing the daily bath for any length of time in any individual case, depends upon the physical condition of the invalid, to be determined by a careful observation of the effect of the first one or two baths. Of course regard must be also paid to the temperature of the water, as well as that of the surrounding air, which may vary materially upon successive days. In cases where open sea bathing is for any reason not to be advised, a milder tonic effect of sea water upon the skin may still be derived from in-door baths, followed by friction with brush or towel.

It has been shown by physiological experiments, that the effect of the sea air, and in a less degree that of the sea bath, tends to accelerate the elimination of the nitrogenous elements of the body, while that of phosphoric acid is diminished.

Electricity a Means of Detecting Death.—Dr Rosenthal, of Vienna, reports a number of cases, and also a series of experiments upon animals, which illustrate the important aid afforded by electricity in furnishing a tolerably certain test for determining death. This sign is the contractility of the muscles in response to the application of the electric stimulus. By the aid of this test, it is affirmed that the diagnosis is rendered easy in cases of suspended animation, arising from apoplexy, suffocation, drowning, &c. It will be found also of practical utility, it is thought, upon the battle field, and in time of extensive epidemics, when the danger of infection necessitates the speedy burial of the dead. Among the cases quoted is that of a hysterical young woman, aged twenty-four, who had lain for thirty-two hours, evincing during this time most of the ordinary signs of death. Some suspicions having been aroused, however, as to her actual condition, to settle all doubts, it was decided to summon Dr. Rosenthal. He found, upon his arrival, that the face as well as the entire surface of the body, exhibited the marble pallor peculiar to the corpse, while the skin was everywhere cool to the touch. Upon raising the eyelids, both the pupils were found to be equally contracted, and showed no appreciable reaction to the influence of light. The upper and lower extremities were relaxed, and when raised, fell like any dead weight. No pulsation of the heart was perceptible to the touch, nor of the radial arteries at the wrist. Upon applying the stethoscope to the heart, however, the room being perfectly quiet, he was able to make out a suppressed, intermittent beat. The thorax, when uncovered, was found to be motionless, but upon watching carefully the abdomen, an exceedingly weak and slow motion could be detected in the lateral walls. The ordinary respiratory murmur was not heard. Dr. Rosenthal now applied his proposed test, and found that the various muscles responded readily to a feeble excitation, so that he was able to give the assurance that the case was one of suspended animation. In accordance with his directions, therefore, heat was applied to the body, and vigorous friction maintained, the result of which was, that at the end of forty-eight hours the woman gradually recovered the power of speech and motion. She stated, that during the first part of her lethargy, she was perfectly unconscious, but afterwards overheard distinctly the remarks of those about her, with regard to her death, without the power, however, of being able to make any motion, or emit the least sound. (*Wiener Med. Presse*, May 9 & 12, 1872.)

Cutaneous Absorption in the Bath.—The question of fact, whether the skin in a bath absorbs water and the mineral elements contained in it, has been brought up anew in the Academy of Sciences by M. Jamin (*Jour. de Med. et Chir. Pratiques*).

It would seem, if there is any real absorption, that its amount might be ascertained by increase in the weight of the body. This is not so easy, after all, for the exact weight is constantly varying, from hour to hour. The waste is incessant, while the repair is periodical.

MM. Jamin and De Laurès repeated, at Néris, the old experiments of Sanctorius.

To fully comprehend these experiments, it should be borne in mind that a man in good condition takes 4000 grammes (about one hundred and thirty ounces) of nourishment a day, of which he expels 1500 grammes (about fifty ounces) of refuse. The remaining 2500 grammes (or eighty ounces), after being assimilated, pass off by the lungs and the skin in the course of the twenty-four hours. This is a waste of about 100 grammes (rather more than thirty ounces) per hour.

But this loss is not uniform ; it attains to 125 grammes after dinner, and diminishes gradually through the night to breakfast of next morning—becoming, according to MM. Jamin and De Laurès, about 80 grammes between six and seven o'clock in the morning. After breakfast the waste is increased—being lessened by rest and augmented by exercise—and may attain to 340 grammes during a midday's walk in the sun.

This loss is due to two causes, respiration and evaporation from the entire surface of the body. According to Lavoisier and Séguin, the proportionate rate of waste from these causes is as one for respiration to two by evaporation.

According to Durieu, every one preserves his weight without loss in a bath of moderate temperature ; gaining by absorption if the temperature is reduced ; losing, on the contrary, if the temperature is raised ; and this loss increases very rapidly when the water is heated to 95° to 115° Fahr.

The experiments of MM. Jamin and De Laurès, at Néris, confirmed in all points the conclusions of Durieu. A subject whose loss from six to seven o'clock in the morning was found to have a mean of 79 grammes, then entered a bath of 95° and remained there till nine o'clock, two hours. His loss was at the rate of 700 to 800 grammes per hour. At ten o'clock, an hour after leaving the bath, he was again weighed, and the loss was found to be only 50·25 grammes. Although there had been no absorption in this case, it does not invalidate the therapeutic value of baths of mineral waters at a high temperature.

A new point on which M. Jamin insists is, that after a bath the loss is much less than before, often nothing, and, in one experiment, in four bathers he found a very slight increase of weight. In fact, it is noticeable that the weight remains almost stationary some time after a long immersion in hot water.

M. Jamin's explanation does not fully solve the question of cutaneous absorption. He takes too little account of external pressure, on which the amount of exhalation greatly depends, in the water as well as in the air.

Thus, the qualities of a bath reside, in a measure, in its own temperature and density ; nevertheless it is necessary to keep in view its chemical composition, which may influence the quality of the perspiration, excite the skin and nervous system, and, in modifying the surrounding atmosphere, introduce mineral elements into the air tubes and the lungs.

The Inventor of Spectacles.—On a tombstone in Florence is this inscription :—"Here lies Salvino Armato d'Armati, of Florence, the inventor of spectacles. May God pardon his sins. The year 1318."

Medical Miscellany.

Lecture by Dr. Brown-Sequard.—The members of the medical profession, in Boston and vicinity, will be glad to learn that Dr. Brown-Séquard, who has lately returned to America, is to afford them an opportunity of hearing a lecture from him. The lecture, which will be free, will be delivered on the evening of Saturday next, Oct. 5th, at 7½ o'clock, in the lecture-room of the Boston Society of Natural History, corner of Boylston and Berkeley Sts. The subject will be The Origin and Signification of the Symptoms of Brain Disease, and will be illustrated by experiments.

Dr. W. L. Richardson has been appointed one of the Visiting Physicians of the Children's Hospital, in place of Dr. Cotting, resigned.

Massachusetts General Hospital.—Dr. Shaw, late Resident Physician of the Massachusetts General Hospital, has removed to No. 28 Marlboro' St., and Dr. Norton Folsom has taken his place at the hospital. Dr. James J. Putnam has been appointed Electrician to the Hospital.

A Stated Meeting of the Suffolk District Medical Society was held Wednesday afternoon, September 18th. The most important item of business transacted was the amendment of the By-Laws of the Society, so that the stated meetings heretofore held in April and September will, in future, occur in March and October, in connection with regular social meetings of the Society. Various committees were appointed, the secretaries of sections who served last year were re-appointed, and minor matters of routine business were attended to.

Dr. Evory Kennedy, of Dublin, the eminent obstetrician, it is stated is to run for Parliament at the coming election in Derry.

Chloroform among the Chinese.—According to a reputed discovery by M. Stanislaus Julien, it appears that as far back as the third century of our era, the Chinese were in possession of an anæsthetic agent which they employed in the same manner as we use chloroform and ether for producing insensibility during surgical operations. A description of this was discovered by M. Julien in a work preserved in the "Bibliothèque Nationale"—called "Kou-kin-i-tong," or a "General Collection of Ancient and Modern Medicines"—which appears to have been published in the sixteenth century. In a biographical notice of Hoa-tho—who flourished under the dynasty of Wei, between the years 220 and 230 of our era—it is stated that he gave the sick a preparation of chanvre (Ma-yo), who in a few moments became as insensible as one plunged in drunkenness or deprived of life; then, according to the case, he made incisions, amputations and the like. After a certain number of days the patient found himself re-established, without having experienced during the operation the slightest pain. It appears from the biography of Han that this chanvre was prepared by boiling and distillation.

The posting of placards of quack medicines has been prohibited in the streets of Chicago.

Books Received.—The Pathology of the Teeth, with special reference to their Anatomy and Physiology. By Carl Wedl, M.D., Professor of Histology in the University of Vienna, &c. Translated by W. E. Boardman, M.D., with notes by T. B. Hitchcock, M.D., D.M.D., Professor of Dental Pathology and Therapeutics in Harvard University. Philadelphia: Lindsay & Blakiston. 1872. Pp. 470. (From A. Williams & Co.)—The Science and Practice of Medicine. By William Aitken, M.D., Edinburgh, Professor of Pathology in the Army Medical School. Third American from the Sixth London Edition, with additions by Meredith Clymer, M.D. Penn. Philadelphia: Lindsay & Blakiston. 1872. Two Volumes. Pp. 1056 and 962. (From A. Williams & Co.)—On some Affections of the Liver and Intestinal Canal, &c. By S. H. Ward, M.D., London, F.R.C.P., &c. Philadelphia: Lindsay & Blakiston. 1872. Pp. 260. (From A Williams & Co.)—Epidemic Cerebro-spinal Meningitis, with an Appendix on the present Epidemic in the city of New York. By Meredith Clymer, M.D. Penn. etc., Philadelphia: Lindsay & Blakiston. 1872. Pp. 59. (From A. Williams & Co.)—Practical Lessons in Nature, and Treatment of the Affections Produced by Contagious Diseases, with an account of the Primary Syphilitic poison and of its Communicability, &c. By John Morgan, M.D., F.R.C.S. &c., Philadelphia: J. B. Lippincott & Co. 1872. Pp. 336. (From James Campbell.)—Evolution of Life. By Henry C. Chapman, M.D,, Philadelphia: 1872. Pp. 193. (From James Campbell.)

Deaths in seventeen Cities and Towns of Massachusetts, for the week ending Sept. 21, 1872.

Cities and Towns.	*No. of Deaths.*
Boston	153
Charlestown	20
Worcester	24
Lowell	20
Milford	5
Chelsea	7
Cambridge	30
Salem	10
Lawrence	11
Springfield	3
Lynn	22
Fitchburg	5
Taunton	5
Newburyport	6
Somerville	18
Haverhill	6
Holyoke	5
	350

Prevalent Diseases.

Cholera Infantum	73
Consumption	47
Dysentery & Diarrhœa	19
Typhoid Fever	19

Seven deaths from smallpox occurred in Boston.

George Derby, M.D.,
Secretary of State Board of Health.

Deaths in Boston for the week ending Saturday, September 28, 147. Males, 84; females, 63. Accident, 5—apoplexy, 1—aneurism, 1—amputation of leg, 1—inflammation of the bowels, 2—bronchitis, 1—inflammation of the brain, 1—congestion of the brain, 1—disease of the brain, 4—cancrum oris, 1—cancer, 2—cholera infantum, 21—consumption, 23—convulsions, 4—croup, 1—debility, 2—diarrhœa, 6—dropsy of brain, 2—dysentery, 2—epilepsy, 2—erysipelas, 1—fever, 3—typhoid fever, 8—gangrene, 1—gastritis, 2—disease of the heart, 3—disease of the kidneys, 1—disease of the liver, 1—congestion of the lungs, 1—inflammation of the lungs, 4—marasmus, 5—measles, 1—old age, 1—paralysis, 2—pertonitis, 1—premature birth, 3—scalded, 1—smallpox, 18—sunstroke, 1—tonsillitis, 1—unknown, 5.

Under 5 years of age, 66—between 5 and 20 years, 18—between 20 and 40 years, 33—between 40 and 60 years, 18—above 60 years, 12. Born in the United States, 102—Ireland, 24—other places, 21.

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Original Communications.

ABSORPTION OF THE HUMERUS AFTER FRACTURE.

Reported to the Boston Society for Medical Improvement, by the various gentlemen under whose observation the case had fallen.

In 1842, the following case, briefly narrated in the Boston Medical and Surgical Journal, of July, 1838, p. 368, was quoted by Costello, in his Cyclopedia of Practical Surgery, as "without parallel in the records of surgery." Its complete history is now for the first time published.

In the autumn of 1819, Mr. C. B., of Boston, at the age of 18, fractured his right humerus near the middle. Subsequently, and before he had recovered entirely, he broke his arm, at the same point, a second time, while holding a plough in the field. A short time afterward, he slipped on the floor, from snow on his feet, and fractured the bone a third time. The last accident was not more than two months from the occurrence of the first. After this final fracture, there was never any tendency to a union of the broken bone, but the humerus began slowly and painlessly to disappear, small fragments of it breaking off, without accompanying inflammation of the soft parts, or any fistulous or suppurating sore, or orifice. The skin of the arm was never broken, and no piece of bone or part of the humerus was ever taken away, or came out unassisted. For four years, Mr. B. did no work, but the process of absorption covered a period of twelve years, at the end of which time the limb had attained a condition in which it permanently remained until the day of his death, at the age of 70 years. This occurred at the Boston Lunatic Hospital, on February 11th, 1871, and was caused by double pneumonia. He had been an inmate of this Institution, at intervals, for four years and three months, but, except in mental condition, was, as he had always been, in excellent general health, with no local affection of his osseous system, except in the arm already alluded to, and capable of a very considerable amount of manual labor, which he willingly and readily performed.

In February, 1847, at the age of 45, Mr. B. was seen and examined by Dr. J. B. S. Jackson, of Boston, who made the following notes of his condition:—

"For the last fifteen years his limb has been about as now. It dangles at the side, and is conspicuously shorter than its fellow. Can feel distinctly a small piece of the humerus, rather irregular and conical, one, or one and a half inches long, and movable on the scapula. Fore-arm shorter by two or three inches than mate. Ulna, seven and three-quarters inches long; upper extremity pointed, and inner edge rather irregular for three or four inches below, as if some absorption had formerly taken place, though the bone feels sufficiently large. Upper extremity of radius is too much buried in the muscles to be felt. Lastly, a bone, about which there is a question whether it is the remains of the lower end of the humerus, or a portion of the ulna, detached and partly absorbed, is found connected with the fore-arm as if by a ligament. It is, perhaps, two inches long; the upper end quite pointed, the lower end comparatively broad; it is, therefore, probably the humerus. Other than this, there is nothing but muscles in place of the humerus; these are well developed, and capable of powerful retraction, and they can be twisted so as to turn the hand entirely round. The hand and fore-arm are sufficiently natural. There is less hair than on the left arm. Writes well with his right hand."

Mr. B. had always expressed the desire that after his death the arm should be dissected and preserved for the benefit of medical science, and this disposal of his limb not being opposed by his relatives, the Warren Museum of the Harvard Medical School is under obligations to Clement A. Walker, M.D., Superintendent and Physician of the Boston Lunatic Hospital, for having zealously ensured its preservation and careful examination.

The dissection from which the subjoined description has been made was most admirably executed by Professor Thomas Dwight, M.D., who also preserved the specimen by means of glycerine and carbolic acid, so that it still retains the suppleness and appearances of a recent preparation.

The description itself is by C. B. Porter, M.D., Demonstrator of Anatomy in the Medical School of Harvard University.

"All trace of the humerus is obliterated, except its two extremities. The remains of the lower extremity consist of a small, somewhat irregular, pyramidal piece of bone and cartilage, 1½ in. long, ¾ in. wide at its base, its apex pointing upward and somewhat outward. This articulates in a very imperfect way with the radius and ulna, both of whose upper extremities are modified by absorption, and their shafts fused together for their upper third into one slender bone, tapering off in a small and imperfect olecranon. This anchylosis at the upper part of the fore-arm reduces the rotation of the radius on the ulna at the wrist to a very slight motion. The remains of the upper extremity of the humerus consist of a thin, auricular-shaped plate of bone, 2 in. long and one in. wide, in close relation with the glenoid cavity, but presenting no real articular surface. On the outer and upper edge of this piece are inserted the tendons of the supra- and infra-spinatus and teres minor, defining this as the greater tuberosity. Just below this is another bony fragment, 1 in. long, ½ in. wide, slightly concave, into the anterior border of which is inserted the tendon of the pectoralis major. Into the inner and upper border is inserted the tendon of the teres major. The latissimus dorsi, which normally should be inserted with that of the teres major, is inserted, however, into the lower border of the teres major, midway between its origin and insertion. A strong, fibrous band connects it with this last-mentioned fragment of bone. A third piece, a small nodule, 4 lines long by 2 lines wide, is attached to this plate on its upper and internal aspect by a tendinous band; the tendon of the subscapularis muscle is inserted into this nodule, characterizing it thereby as the lesser tuberosity of the humerus. The articular surface of the glenoid cavity is obliterated; the bone itself only slightly if at all modified. The intervening space between the upper and lower fragments of the humerus is occupied by a fibro-muscular mass, about half the normal length of the humerus, judging from the size of the scapula and the length of the fore-arm. This is made up, principally, of the brachialis anticus and the triceps, united closely to each other. The biceps, lying anterior to this, arises and is inserted normally. The deltoid and coraco-brachialis arise normally and are inserted, the former into the outer, the latter into the anterior surface of the mass described. The scapular head of the triceps arises normally; the other two heads are blended in this central mass, which gives origin, also, to the brachialis anticus in front. These two muscles, as they approach the elbow-joint, surround the remains of the lower end of the humerus and pass onward to become blended with the origins of the extensor and flexor muscles of the fore-arm, with no definite point of insertion. The supinator longus and the flexor carpi radialis longior take origin from the fibro-muscular mass. The humeral origin of the remaining muscles of the fore-arm is blended with the insertion of the muscles of the arm. All the bony prominences at the elbow-joint are so modified and absorbed as to bear no resemblance to the properly-developed bones. The muscles thus described, although somewhat fatty and atrophied, still present a very fair amount of development, and are well defined and readily distinguished and separated from each other."

The arteries, veins and nerves are not preserved in connection with the muscles, but at the time of the dissection a careful examination revealed no traces of a departure in them from an apparently natural and healthy condition.

The serviceableness of this remarkable limb has been already alluded to. Prof. S. D. Gross says in his Surgery (vol. i. p. 882, 4th Ed.), that he saw Mr. B. in 1856, and gives a wood-cut of the arm as it appeared when the muscles were contracted. It was then essentially in the same condition as at the time of the patient's death. Dr. Gross states that it could readily raise a weight of one hundred pounds, and Dr. Jackson observes that he has often seen Mr. B. carrying a heavy basket of provisions with it. But the following account, by Mr. W. E. Mosely, Resident House Pupil at the Lunatic Hospital, gives an interesting and detailed account of its capacity for work.

"Mr. B.," he says, "could hoe, rake, shovel, sweep, cut wood, carry a large pail of water, hold a knife at the grindstone, and write a good hand. (He used to write letters for other patients.) He took care of his own room and made his own bed. By twisting the upper part of his arm, he could use his fingers well enough to tie his neck-handkerchief. One of his amusements seems to have been to twist his arm once and a half around in one direction, and then, taking up a pail of water, to let it untwist and twist once and a half round in the other direction. He could not flex the fore-arm upon the upper arm at will, nor could he extend the fore-arm when flexed, unless in a position in which the weight of the arm would make it drop. The muscular power of the arm was very considerable."

In bringing the facts of this exceptional case into their proper order, the compiler has looked in vain for information bearing upon its phenomena. That, under some circumstances, the callus of a recent fracture may disappear, and an imperfect, or complete want of consolidation ensue, is a recognized occurrence; but that such a process should go on, involve nearly the whole humerus, and, to a certain extent, bones in relation with it, is, so far as known, without precedent in the books, or (not forgetting the progressive atrophy of the muscles) in the analogy of similar occurrences in other tissues than the bones. That this arrest of nutrition had anything to do with a local condition of the parts, or with the treatment of the fracture, does not appear. The changes which sometimes take place in the articulating extremities of bones in certain cases of locomotor ataxia are, perhaps, to be remembered in this connection, though nothing suggestive of that, or some similar disease, so far as Mr. B.'s general health was concerned, was ever noticed, beyond a disturbance of the nervous centres, leading to an insanity of the form termed "Chronic Circular Mania," characterized by alternations of extreme depression and excitement, the intervals between which varied from nine to twelve months.

Dr. Felix von Niemeyer's large and valuable library has, since his death, been bought by Albert Moses, a bookseller of Tübingen. He has carefully catalogued it, arranging it with the same headings as are found in the "Practice" of Niemeyer. He thus offers members of the profession an opportunity to rescue the whole or part of the library once belonging to this great master in medicine.

COLLOID DISEASE OF ALMOST THE ENTIRE STOMACH, WITH VERY UNUSUAL SYMPTOMS.

Communicated to the Boston Society for Medical Improvement by Dr. D. H. Storer, June 24th, 1872.

Mr. E., a merchant of this city, was 68 years of age at the time of his death, which occurred in May, 1871. From the time that he was a young man he had been occasionally troubled by his food, had always been constipated, and for the last few years quite so. Four or five years before his death, I saw him for the first time, and found a very marked tumor below the right hypochondrium, with a considerable sense of uneasiness there, and which he had had for some years. Mr. E. afterwards spent four months in Europe, and during that time was not sick for a day—his weight then being 147 lbs. During the greater part of the summer of 1870, he was at his country-seat in Pepperell, and enjoyed himself highly; but from that time he gave up business, lost flesh, and in the autumn had extensive dropsy of the lower extremities. On the 22d of February, he had a faint turn on stooping, was less well afterwards, and never again had on his clothes. He had a yellowish, sallow look, and his eyes were occasionally yellow, but the color of his discharges was natural. From September, 1870, there was great enlargement in the epigastric region, and from that time there was a prominent, hard tumor, over which the skin was tightly drawn, but it was not particularly tender on pressure. His appetite was good until the last, and he took meat the day before his death, with relish; mutton chop and oysters he would take at the same meal, and pig's feet he often took. He also continued to smoke, though not daily. He was very fond of grapes, and would often take a pound daily. After August, 1870, he never took his meals at the table, as he suffered from dysphagia, with a sense of obstruction and a "tearing feeling" in the œsophagus. There was no acidity, flatulence or heart-burn. Notwithstanding his appetite, he had nausea most of the time from August, 1870, until his death, and without any regard to the taking of food, but he had no retching. During the summer of 1870, he vomited, twice, a colorless mucus in trifling amount, and not long before his death he vomited after taking castor oil, and these, so far as Mrs. E. can remember, are the only times that he ever did vomit. Towards the last, with a desperate hope of relief, he put himself under the care of a heroic practitioner, and after a severe course of purgatives, sank.

On dissection, by Dr. Ellis, the stomach was found to be very greatly enlarged, and on being cut open along the large curvature, the whole organ was seen to be affected with colloid disease, except at the left extremity, where, to the extent of about an inch, the tissues were nearly or quite healthy. The appearances along the cut surface were remarkably uniform, the parietes being seven-eighths of an inch in thickness toward the pyloric portion, and gradually diminishing to their natural thickness at the left extremity. In structure they consisted of the most perfectly characterized colloid, without a trace of the mucous, sub-mucous, cellular or muscular tissues, though the remains of the sub-serous cellular were traceable throughout. As the function of digestion was so remarkably performed, and to the very last, a microscopical examination of a small portion of the organ was made by Dr. Fitz, after it had been for some time in spirit, but no normal glands were found. The disease extended a short distance into the œsophagus, but stopped abruptly at the pylorus. The omentum was extensively diseased, and near the stomach was a mass of the most perfect colloid, between one or two inches in thickness. Upon the surface of the liver there was one small nodule of the same, and many small ones were scattered over the peritoneal surface, but elsewhere there was no trace of the disease. The kidneys, however, were granular, and there was a large amount of serum in the peritoneal cavity.

It seems almost incredible that this individual should have been able to enjoy and digest his food, when such disorganization of the stomach must have existed for no inconsiderable period.

Dr. E. H. Clarke saw Mr. E., September 26th, 1870, and the following statements are from notes that he took at the time :—

Generally healthy until three years ago, and then some acute disease in the lower part of the abdomen ; fair health afterward until nine or ten months ago, and then hepatic symptoms ; tumor hard and irregular, and considerably more marked upon the left of median line than right, greater tenderness being near the ensiform cartilage.

December 14th, he saw him a second time, and found the tumor more distinct in the middle of the abdomen, less below the left ribs, and evident to the eye as well as to the touch.

Dr. S. W. Fletcher, of Pepperell, says, in a written account of Mr. E.'s case, that he first saw him in October, 1869, and there was then some uneasiness, with occasional pain in the stomach. In April, 1870, the pain, with soreness, continued, and there was distress after some kinds of food. There was, also, on deep pressure, just beneath the cartilages of the ribs and a little to the left of the median line, a feeling of firmness, with dulness on percussion. From this time until the 22d of September, when he returned to Boston, the tumor increased, and for the pain he was obliged to take the sulphate of morphine several times daily. About the middle of August, he vomited a little glairy mucus in the morning, and the same early in September, but at no other time, so far as Dr. F. heard. He had slight nausea, however, occasionally, but he complained mostly of pain and distress, and often within half an hour after taking food. In September, the tumor was quite prominent, reaching nearly to the umbilicus, almost across the epigastric region to the right, and towards the left side just into the hypochondriac region. The liver could be felt, but the case was regarded by Dr. F. as one of disease of the stomach.

On Thoracentesis.—Dr. Clifford Allbutt (*The Practitioner*, Aug., 1872) urges early puncture of the thorax in cases of pleuritic effusion. He thinks that nothing approaching the *promptitude* of the relief which in such cases is afforded by thoracentesis can be attained by medicine. He states that if he finds any large amount of fluid in the pleura of a patient he now never tries medicine at all, unless the friends or the family attendant urge such a course ; for in his records of cases treated by drugs, and in such records as he has of cases so treated by others, the results are very far inferior to those in which puncture has been employed. He cites the case of an old gentleman who had gone about for many months with his left pleura nearly full of fluid, and who had been treated with mercurials, digitalis, iodides, tonics, and good nutrients, but in vain. In the end the fluid subsided in considerable measure, but chronic pneumonia supervened in the injured lung, and he ultimately died. "I have no reasonable doubt," he states, "that his life could have been spared, and his health quickly restored, had he been tapped at the beginning."

Progress in Medicine.

REPORT ON OTOLOGY.

By J. Orne Green, M.D.

[Concluded from page 236.]

On the relation of conical incisor teeth, and of pannus of the cornea, to the development of deafness.—A. D. Davidson. (*Ann. d' Ocul.* lxv.)

The author directed his attention to the relation which pannous keratitis bears to deafness, and the peculiar shape of the teeth, (Hutchinson's teeth).

Most of the patients with these three symptoms were from 11 to 16 years of age, generally poorly nourished and unhealthy, and what is more remarkable, all of them were females.

The disease in the ears consisted of an affection of the Eustachian tube alone, or more frequently associated with an inflammation of the membrana tympani and the lining of the meatus. In its earlier stages, the membrana tympani is red, becomes gradually paler as the disease progresses, but remains thickened and loses its elasticity. The hyperæmia of the mucous membrane of the Eustachian tube results finally in chronic swelling and closure of the canal. The prognosis is very unfavorable, for when the disease has once produced a thickening of the membrana tympani, a restoration of the hearing is very doubtful. An improvement can only be expected when the general health can be restored.

The relation of these three symptoms to syphilis, is not wholly denied by the author, but he says that in only 20 per cent. of his cases was he able to establish such a connection.

The connection of interstitial keratitis and conical teeth has been sufficiently established, but attention is here first called to its association with disease of the ears. Some years since Hinton, in Guy's Hospital Reports, described a form of deafness which he had seen quite frequently in syphilitic persons, and especially in children with hereditary syphilis; he considered it a form of disease of the labyrinth dependent on the general disease, coming on rapidly, without visible changes in the ear, and resulting, often within a few days, in total deafness. Treatment, either local or general, he found absolutely useless.

In 1870, Gruber published (*Wiener Med. Presse*) an article on the syphilitic affections of the ear, in which he stated that the mucous membrane of the middle ear was especially liable to disease on account of its connection with the throat and nose; the hypertrophic form of inflammation he considered particularly common in this membrane in syphilis. No mention is made, however, by him of any characteristic appearances different from those seen in persons without the general disease, nor does he mention any peculiarity of the ear disease in cases of hereditary syphilis. In regard to treatment, he cautions against trusting to remove the diseases of the ear by treating the constitutional affection only, considering a local, combined with the constitutional treatment, as necessary to obtain the best result.

During the last year I noticed a somewhat peculiar appearance in the ears in connection with interstitial keratitis, and in a clinical lecture at the hospital called attention to it. I can recall but three cases, two girls and one boy—although I may have seen one or two more—but, in all, the appearances were nearly the same, and quite characteristic on the membrana tympani, this membrane being dull and infiltrated, and recalling immediately the appearance seen on the cornea, with its little spots of thickened intestitial tissue. The opacity of the membrane appeared different from that usually seen with the common inflammation of the mucous membrane; with this appearance there was more or less congestion along the manubrium of the hammer, and on the walls of the osseous meatus; in all, the pharynx was inflamed, and the Eustachian tubes swollen; the deafness was considerable in two, and in the boy, so extreme that he could only understand words shouted into his ear. In two, hereditary syphilis was almost certain; in regard to the other nothing could be learned. The treatment consisted in general tonic and specific medication, with a local treatment of the ears by the air-douche, and applications to the pharynx. In the two cases which I was able to follow, the result was a decided improvement in the hearing, and a disappearance of the inflammation, although a much greater degree of deafness remained than would be expected from a simple catarrhal inflammation of corresponding severity and duration at that age. The only case seen after treatment has remained without relapse nearly a year, and seems to be still improving. In the case of the boy, iodide of potassium had been given for some time before I saw him, without the least effect on the ear-disease, and I am unable to speak of the final result, as I saw him but three times. After the reduction of the congestion the appearances were the common ones of plastic inflammation, and I regarded the disease as belonging to this class, its peculiarities being the appearances in the membrana tympani, and the rapidity with which thickening came on.

Davidson appears not to have noticed anything unusual in the membrana tympani, but otherwise the appearances in his cases resemble those in mine. I am led, however, from my experience in these few cases, to expect more from local treatment than he does, although I doubt if a complete restoration would ever be possible after this inflammation. The thickening of the mucous membrane goes on very rapidly, and the duration of the disease must have great influence in forming the prognosis.

On the Existence of Blue Otorrhœas.—ZAUFAL (*Archiv. f. Ohrenheilk.* vol. vi. p. 3). The recent discussions on the pathogenic relation of the smaller organisms to infectious diseases, gives an interest to this contribution of Zaufal's. The phenomenon of "blue pus" he speaks of as not very uncommon on bandages and compresses over wounds, but till recently he had never seen it in otorrhœa.

All matter colored in this way had been found to contain minute bodies, which Lücke and Krembs considered to be of an animal nature, while Sedillot and Roucher thought that they were vegetable. Petrequin thought that the color was due to sulphate of iron, and Virchow that it was a blue coloring matter from the urine. Lücke observed undoubted voluntary movement in these bodies, and considered them vibros, different, however, from the vibrio-cyanogenus of milk; he found that serum and not pus was necessary for their existence, and considered that the blue color of the pus depended upon them. If some of them in a bandage were placed on suppurating or moist wounds, where from the warmth of the body, moisture and albuminous nourishment they could rapidly increase, the bandage assumed an intense, blue color; light and air did not seem necessary for their development; the appearance and disappearance of the blue color was spontaneous; it was usually found on the first bandage, or in cases where the discharge was serous; profuse suppuration was unfavorable to its development; its existence had no influence on the healing of the wound; its inoculation was generally successful.

The coloring matter has been separated by Fordos, and named pyocyanin; it chrystallizes from a chloroform solution in blue or green needles, and has the reaction of lakmus.

Prof. Ferdinand Cohn, in his studies on the relation of bacteria to putrefaction and to contagion (Feb. 14, 1872), concludes that all putrefaction is accompanied by the development of bacteria, which appear when putrefaction begins and disappear when it ceases;

The transportation of the eggs through the air is difficult, but through water or through contact with unclean surfaces, very easy;

Putrefaction is a decomposition of the albuminous compounds by means of bacteria, in the same way that alchoholic fermentation is a decomposition of the sugar by means of the yeast plant;

In certain classes of bacteria these products are characterized by being colored orange, green, blue, brown or violet;

The appearance of bacteria in the blood and secretions of contagious diseases, renders it probable that they are the bearers of the infection, and the exciters of the pathological process;

The transferring of the bacteria seems to take place chiefly through water.

Zaufal, from this review of the literature of the subject, does not consider that the conditions necessary for the development of blue pus are as yet understood, nor does he even think it settled that the animalcules are the cause of the blue color, since we see it appear and disappear on wounds without appreciable cause.

The two cases of otorrhœa in which he observed it, were lying in the same ward with similar otorrhœas, all of them using water from the same source, and similar lint. Both of the cases were purulent inflammations of the tympanum without abundant secretion. Fibres of lint soaked in blue pus were applied to five other cases of otorrhœa with the result of perfect inoculation, the secretion in these cases becoming also of an intense blue in from 24 to 48 hours. An examination of the secretion showed masses of bacteria such as had been described in other wounds. In three of the five cases an inflammation of the meatus appeared simultaneously with the blue pus, but otherwise the inoculation had no influence on the course of the disease.*

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* Writers of papers on Otology will contribute much assistance in the preparation of the semi-annual reports in this department if they will forward copies of their papers, addressed to this JOURNAL.—EDS.

Reports of Medical Societies.

SUFFOLK DISTRICT MEDICAL SOCIETY. REPORTED FOR THE JOURNAL.

The Society resumed its meetings after the summer intermission, Saturday evening, Sept. 28th. The President, Dr. Lyman, occupied the chair.

Dr. Fitz exhibited a fœtus which had been sent to him by Dr. Norris of Cambridge. It presented an ectopia cordis; the heart was lying entirely outside the walls of the thorax, suspended in its place by the attachments of the large vessels. The pericardium was to be observed posteriorly but not anteriorly.

The child lived ten minutes after delivery, the pulsations of the displaced heart continuing that period.

Besides this abnormality of the heart, there was a double hare-lip deformity.

Dr. Jackson remarked that specimens of ectopia cordis were preserved in the foreign pathological museums, but, so far as he knew, this was the first instance of the kind reported in this vicinity.

Dr. Jackson exhibited a photograph of a collection of needles, three hundred in number, which had been removed from the body of an insane woman at the asylum in Utica, N. Y. The case was fully reported some time since in the *Journal of Insanity*. There was no history of her having introduced the needles into her body before her entrance to the hospital, and no performance of that kind was observed while she was there, but a few weeks after admission an inflammation of the breast developed, and at the place of pointing of the pus a needle was discharged, the first of the three hundred from various parts of the body, the limbs, the abdominal walls, the mammæ, &c.

Dr. Jackson also showed a collection of needles which had a history similar to those just described. They were removed from the body of a negro woman of Nantucket, some years ago; no cause for the freak of their introduction having been assigned.

Dr. Jackson presented a specimen of relaxation of the ligaments of the symphysis pubis. It was taken from the body of a woman who died of meningeal apoplexy, under the care of the late Dr. Townsend, at the full period of gestation, but before labor had commenced. The ligaments of the pubes were relaxed to such a degree that the two bones could be made almost to overlap; the anterior border of one resting on the posterior border of the other.

The symptoms referable to this condition during life, had been a lameness and a feeling as of loss of pelvic support, so that it was necessary to rest in going up stairs. The patient had had one child previously, and the same lameness occurred at that time, suggesting a similar state in connection with that gestation.

Dr. Jackson said he did not think these cases of ligamentous relaxation about the pelvis so rare and exceptional as was supposed; he himself had seen quite a number of specimens more or less marked. It was probable, however, that it was a condition not readily recognized during life, except in cases which were well developed.

Dr. Lyman remarked that he had had two cases of the kind under his observation; one of them was quite marked. In this latter case, there were some obscure symptoms before labor which might readily be explained by the conditions peculiar to the last stage of pregnancy, particularly the lameness. After labor, however, the state of relaxation became easily recognized. The inability to walk was increased, and became so serious that it was only by the use of a band or strap, firmly applied, that locomotion became comfortable. The ossa pubis could be felt by the patient and by himself to move one upon the other. Gradual recovery followed.

Dr. Jackson illustrated the subject in point, by showing the pelvis of a Guinea-pig, the pubic bones of which were separated a third of an inch in consequence of parturition; and, also, that of a mouse, the symphysis pubis of which showed marked separation in connection with a condition of advanced pregnancy.

Dr. Bixby exhibited a collection of ten urinary calculi, removed from the bladder of a woman in whom they had given rise to symptoms, variously severe, during a period of twelve years. The patient had an hereditary predisposition to stone. The operation for removal consisted in the dilatation of the urethra by means of sponge-tents, and the extraction of calculi, eleven in number, after full dilatation. Immediate relief resulted from the operation.

Dr. B. Joy Jeffries read a paper entitled "The Re-introduction of Ether into England." The paper appeared in the JOURNAL for Oct. 3d.

Dr. Sinclair read from an old medical work of the last century a curious account of the passage, from the rectum of an adult man, of a worm one foot and a half long, and one inch and a half in diameter, composed of segments and containing blood. Its color was dark chocolate, and its head contained a mouth like that of a horse-leech. The passage of this parasite gave rise to much hæmorrhage from the bowels.

Bibliographical Notices.

The Pathology of the Teeth, with special reference to their Anatomy and Physiology. By Carl Wedl, M.D., Professor of Histology in the University of Vienna, &c. Translated from the German, by W. E. Boardman, M.D. With notes by T. B. Hitchcock, M.D., D.M.D., Professor of Dental Pathology and Therapeutics in Harvard University, &c. With one hundred and five Illustrations. Philadelphia: Lindsay & Blakiston. 1872. Pp. 470.

Up to the present time, dental pathology has had but a feeble existence; numerous facts existed, but they were scattered in all directions, isolated and in groups. Those interested in dentistry, with but few exceptions, devoted themselves almost exclusively to the practical details of the subject, thereby creating the art of the most immediate importance, while the science held a sort of ideal existence. But this is now placed on a firm basis, mainly through the efforts of Prof. Wedl.

Two years ago, the German edition of this work was issued, closely following the publication of the "Atlas of the Pathology of the Teeth, by Heider and Wedl," to which numerous references are made in the volume now before us.

Some seventy pages are devoted to the anatomy and physiology of the teeth, by way of introduction, and a more thorough and accurate exposition could hardly be desired. Throughout this section, as throughout the entire book, the reader is continually impressed with the immense amount of original work which the author has bestowed upon his subject. The matter of the development of the teeth is especially interesting, illustrated as it is by most admirable drawings.

In speaking of the shedding of teeth, Wedl calls attention to appearances indicating an interstitial absorption, the formation of gaps in the cement, which become filled with amorphous calcareous salts. The tissue most active in the destruction of the cement is described as a granulation tissue, often containing a varying number of giant-cells, and is probably developed from the root-membrane of the milk tooth and from the medulla of the adjacent osseous tissue. Where this is in contact with the fang, depressions are produced, similar to those seen upon necrosed bone and ivory plugs which have been introduced into living bone. Wedl thinks that the cells of the granulation tissue secrete a fluid which dissolves the hard substance.

With regard to the possibility of a third dentition, no individual testimony is given, though the theoretical possibility of such an occurrence is admitted, on the ground that germs may lie dormant for a number of years and then develope, favorable conditions being present. Still, the weight of evidence seems to favor the explanation of a third dentition as due to the appearance of previously imbedded teeth, or parts of teeth, the surrounding bony walls having undergone senile absorption.

The bulk of the volume is devoted to the pathology of the teeth, and for greater convenience as well as for more exact classification, the various possible alterations are grouped under Irregularities in Formation, Inflammations, Atrophies, Hypertrophies, New Formations, Anomalies of the Secretions and Neuroses.

Following Albrecht, Wedl disputes the statement of Hutchinson with regard to the appearance of the teeth in congenital syphilis. Dr. Hitchcock, who annotates the American edition, very ably answers Albrecht's objections, calling attention to the observations of Dr. H. W. Williams, and introducing the plates prepared by the latter.

To the general physician, it may be interesting to learn that so high an authority as Wedl is inclined to attach considerable importance to the causative influence of teething in producing affections of the nervous system, intestinal tract, respiratory organs, &c. Influenced by the observations of others, he states that "inflammations of the gums during the eruption of the milk teeth are to be watched with the greatest care, and we must not assent to nihilistic doctrine (nihilismus) in respect to the influence of difficult teething upon the infantile organism," and he raises the hope that some one may establish "an anatomical basis for abnormal dentition, by its pathologico-anatomical study."

Among the curiosities of medical experience, of especial interest to the surgeon, may be mentioned the case reported by Prof. Strasky. An ulcer had existed on the left side of the chest, opposite the armpit, near the fourth rib, for three years, during which time the patient had been under treatment for the same. Pressure applied from the angle of the jaw downwards along the surface of the neck to the region of the ulcer, caused pus to escape from its surface. The removal of the carious left lower wisdom-tooth was followed in three weeks by the healing of the ulcer.

With regard to the disputed point of the possibility of the existence of a healed fracture of a tooth, Wedl is able to give direct evidence, and figures two such cases in his Atlas. The reparative process commenced in the pulp, and dentine, globular masses and bone were reproduced.

The chapter on new formations will prove of interest to the surgeon, since a very complete exposition of the subject of maxillary tumors is to be found under this head.

The statement of Dr. Bowditch, that the presence of vegetable or animal parasites in the immediate vicinity of the teeth is due to uncleanliness, is denied by Wedl as regards the leptothrix, which may make its appearance under certain conditions even when the utmost cleanliness exists.

That tartar is composed of collections of vibrios encased in a coating of lime is disputed; an organic cement, of mucus, epithelium, mixed saliva and leptothrix, unites with the inorganic salts precipitated from the saliva, hence the incrustation.

In discussing caries, Prof. Wedl regards the process as the result of abnormal secretion, at the same time acknowledging that his theory with regard to the same, like all others, wants a thoroughly scientific basis. "In consequence of the decomposition of the secretions, acids are formed which extract the calcareous salts from the hard tissues and give rise to a disintegration of the affected portions of the latter, in which no inflammatory reaction occurs. The destructive process is promoted, essentially, by the accumulations of secretions and particles of food, and opportunity is afforded for the proliferation of leptothrix buccalis, in the dead and softened dentine."

Wedl's Pathology of the Teeth must serve as authority for many years to come. Teaching methods of observation and analysis, it also points out fields which will prove fertile to future research. To the dental student a knowledge of its contents becomes a necessity; as a book of reference, the medical practitioner, surgeon as well as physician, will have frequent occasion to consult its pages. Among the many works of special investigation which Germany has given us of late years, this will hold high rank for originality, comprehensiveness and execution.

Dr. Boardman deserves special praise for the results of his skill and labor. Apart from the difficulty of rendering idioms exactly, many of the terms used have a limited meaning only to be got at by careful study, and the translation furnishes a very readable description of processes, often somewhat difficult to follow in the original. He has conferred a great favor, too, on all who consult this work by enlarging the index from three pages to twenty-five, thereby increasing the usefulness of the volume to a considerable degree.

Prof. Hitchcock pays the greatest possible compliment to the author in finding it necessary to add but few notes: these, however, are well-selected and give additional light.

The publishers are to be congratulated upon the appearance of the book. Paper and print are excellent, the illustrations sharp and clear, produced from the original electrotypes. F.

Epidemic Cerebro-spinal Meningitis; with an Appendix on some Points on the Causes of the Disease, as shown by the History of the present Epidemic in the City of New York. By Meredith Clymer, M.D. (Univ. Penn.), &c. &c. Philadelphia: Lindsay & Blakiston. 1872. Pp. 59.

This sketch is reprinted, with a few corrections, from the author's additions to the American Edition of Dr. Aitken's *Science and Practice of Medicine.* The occasion of its re-publication is the prevalence of the disease in New York City. The present epidemic is described in an Appendix, and an interesting map of the city has been added, which gives the situation of the ancient water-courses and marshy lands, and indicates by a red spot the place where each death occurred. From this map we infer that Fourth, Fifth and Madison Avenues are highly unobjectionable places of residence—at least as far as the epidemic in question is concerned—while the rest of the city is more or less covered with tokens of "spotted fever," distributed most densely in the crowded quarters. The disease made its appearance about the beginning of the present year; during the first six months the number of reported cases was 790; of deaths, 607. In July there were 70 deaths.

If not originally caused by filth, accumulation of refuse, poor drainage, and bad ventilation, there can be no doubt that the disease owes its diffusion in three cases out of four to such circumstances. It is positively sickening to read the reports of the abominably foul places where it occurred. It would be equally nauseous to report the exact condition of many a poor man's tenement in Boston, such as we have seen. Prof. Clymer's little pamphlet is very welcome just now in a city which is trying to get what it wants—a Board of Health. Shall our Philadelphia friend put in a second Appendix, next year, with an account of the epidemic in Boston in 1873? D. F. L.

A Treatise on the Diseases of Infancy and Childhood. Second Edition. By J. Lewis Smith, M.D., &c. Philadelphia: H. C. Lea. 1872. Pp. 741.

We took pleasure three years ago, in calling the attention of the profession to an excellent work on children's diseases, by Dr. Smith; and now we find before us the second edition of the same book. On looking over its pages we find that nearly twenty diseases have been treated, which were unmentioned in the former edition; new formulæ have been added, and portions of the work have been re-written, either for the purpose of better arrangement, or in order to keep up with the advance of medical science.

Altogether the book is a thoroughly reliable one; it is pleasantly and clearly written, and will rank with the best works on the interesting subject of which it treats.

How the World was Peopled. Ethnological Lectures by Rev. Edward Fontaine. New York: D. Appleton & Co. 1872. Pp. 341.

The ideas arrived at by the author of this book, have been reached after a careful study for many years, and by diligent comparison made by him in theology, archæology and natural science. The conviction which he reaches is that commonly understood by the readers of the Bible, that all the inhabitants of the earth are derived from one original pair of parents. The subjects of evolution and natural selection, of unity or plurality of the human species, of the probable presence of human remains, of the age of the world and of the human race, whether we estimate it by centuries or by æons, have long tasked the minds of the profoundest philosophers; they are themes of the highest importance, and are worthy to engage the attention of all. Mr. Fontaine's book treats of the arguments which have fixed his mind in the belief that we are all descended from a single pair, and it is written for those who are anxious to clear their minds about their origin. He has adopted a simple and intelligible style of composition, and his work is both interesting and valuable to the common, as well as the more scientific reader.

On Food: being the substance of four Cantor Lectures. By H. Letheby, M.B., M.A., Ph.D., &c. Second Edition, enlarged and improved. Pp. 255. New York: William Wood & Co. 1872.

The four lectures of which this book is composed, treat of food with reference to its varieties, chemical composition, nutritive value, comparative digestibility, physiological functions and use, preparation, culinary treatment, preservation, adulteration, &c. Each one of these divisions is considered at length, and many practical hints are thrown out during their discussion.

Some curious statements are made, as the following:—The writer when speaking of Indian meal says (p. 16), "The grain is said to cause disease when eaten for a long time, and without other meal—the symptoms being a scaly eruption upon the hands, great prostration of the vital powers, and death after a year or so, with extreme emaciation. The sallow, wheezen look of the natives of the northern states of America, is thought to be due to the indigestible preparations of Indian corn."

Lecture II. contains a succinct, yet clear account of the more recent facts and theories concerning the function of digestion, and discusses also the effects of different varieties of food in the formation of the character and capabilities of the inhabitants of different countries.

The book has much that is interesting concerning ancient customs regarding the subject under consideration:—e. g., pp. 128 and 129, on ancient habits of dining.

This book may be recommended to those who desire to possess a brief yet quite thorough treatise on the subject indicated by the title.

Mr. Airy, Astronomer Royal of England and President of the Royal Society of London, has been elected foreign associate of the French Academy of Sciences.

Medical and Surgical Journal.

Boston: Thursday, October 10, 1872.

HEAR THE OTHER SIDE.

In marked contrast with the tenor of the remarks of Dr. Amory at the July meeting of the Norfolk District Medical Society (see this Journal, page 238), we would call attention to the following.

An Editorial of the *Medical Times and Gazette* of Sept. 7th, 1872, on Medicine and Physiology, is suggested by the address of Dr. Burdon-Sanderson at the recent meeting of the British Medical Association. In the course of his remarks, the lecturer intimated that it is the aim and intention of the physiological school of thought and work to separate themselves more and more from the school of practical medicine.

We quote at length from the editorial, which advocates the superior claims which experience and empiricism have upon practical medicine.

"As it is, we think we may look at the line which the physiologists are taking without any dismay. We would not for one moment be supposed to underrate the services of physiology to medicine. The great discovery of the circulation of the blood; the ascertained facts in relation to absorption, secretion, nutrition; the functions of the brain and nerves and respiration; the microscopic appearances of the tissues and products of the human body in health and disease—are all parts of the very foundations of modern medicine. But when we come to examine into the influence of physiological theories—the opinions of physiologists, based, it may be, on experiments on the lower animals in unnatural conditions, or upon theories of health and disease, derived from the study of the former rather than of the latter—we believe that we shall find that such influence has been by no means an unmixed benefit.

"It is the fact that the teaching of experience is more reliable than physiological theories and opinions—which we think is especially taught by the history of modern medicine. The history of the advance of the cure of disease is the history of empiricism in the best sense of that much-abused word. The history of retrogression in the art of curing disease is that of the so-called physiological schools of medicine. The school of physiological medicine, of which the late Dr. Todd may be considered the representative, introduced, in opposition to all accumulated experience, that routine practice of over-stimulation in acute disease from which the profession is only now freeing itself. Physiological theory has been one great agent in practically depriving us of the most powerful of our weapons for the subjugation of disease—the abstraction of blood under suitable conditions. Physiological theory, based on experiments on dogs, wishes us to believe that mercury does not excite a flow of bile; but here, the common sense of the profession, educated by experience, has refused to be led by physiological theory. Physiological theory, observing the effects of mercury on animals in health, has led to the partial abandonment of mercury in the cure of syphilis, because the drug in a healthy animal will produce disease of the bones. Whereas the experience of Lee, Langston Parker, to say nothing of Ricord and older writers, would recount numberless cases where syphilitic nodes have disappeared as if by charm under the use of the calomel vapor-bath or of mercury introduced in some other way. Physiological theory has asserted that because antiphlogistic treatment depresses and reduces vital and nervous power in health, therefore it must necessarily do so in disease—an assertion refuted by the experience of all clinical observers, not of the physiological school, since the time of Hippocrates.

"That the progress of physiological research may be of enormous use to practical medicine we most firmly believe, and for that reason we hope that, although the physiologists may separate themselves from the profession of medicine, the cultivators of medicine will never fail to watch narrowly the progress of physiology, and not only to forward but to apply it as far as in them lies. But physiological theory, and much of so-called physiological experiment, are not physiological progress. Dr. Burdon-Sanderson hopes that education in physiology will tend to make the public more ready to take the advice of the doctor in the regulation of their life, and less credulous about the efficacy of drugs. In the sense in which Dr. Sanderson expressed this hope we most cordially join in it. But we must remind physiologists that all the knowledge that is necessary for the ordinary regulation of life may be summed up in a comparatively very small space. Modern physiological science has taught us little more than the necessity for pure air, water, and food, good clothing and shelter, moderation in eating and drinking, and the regulation of the passions—things, in fact, which are as old as the Pentateuch. If we go beyond these, we get into the domain of practical medicine. We may safely assert that all the experiments made on luckless animals since the time of Magendie to the present, in France, America, Germany, and England, have not prolonged one tithe of human life, or diminished one tithe of the human suffering, that have been prolonged and diminished by the discovery of Jesuits' bark and cod-liver oil. Until modern physiologists, therefore, can do more for modern physicians than they have lately accomplished, we cannot blame the latter if, in Dr. Sanderson's phrase, 'they rest on the more reliable teaching of experience, and are quite willing to do without us.'"

In this connection we also recall the remarks of Prof. H. J. Bigelow in his address before the Massachusetts Medical Society, June, 1871. Speaking of vivisection, he says :—

"How few facts of immediate considerable value to our race have of late years been extorted from the dreadful sufferings of dumb animals, the cold-blooded cruelties now more and more practised under the authority of science." —(*Med. Communications of the Mass. Med. Society*, p. 220, vol. xi., No. v., 1871.)

Yet we believe that neither of the authorities from whom we have quoted would undervalue the legitimate efforts of physiologists to establish the truth of their theories. They are needed, however, not only to originate discoveries, but to aid in establishing the true value of the remedies which practical medicine has empirically adopted; for neither "Jesuits' bark" nor "cod-liver oil" has fulfilled the extravagant hopes which heralded their introduction. Both clinical experience and physiological research have problems yet to solve regarding these two drugs, about which we think we already know so much, before our knowledge of them can be considered complete.

From British Journals.

Contagiousness of Phthisis.—In his Notes on Consumption, Richard Payne Cotton, M D. (*The Brit. Med. Journal*, Aug. 31, 1872), discusses the question of Consumption and Contagion.

He states that the Consumption Hospital of Brompton, with which he is connected, was opened in 1846 with ninety beds, which, ten years later, were increased to two hundred. These have been constantly occupied. During this long period, but one nurse has died of phthisis, and she was a poor creature, whose husband had deserted her, and who had long endured from other causes, also, much anxiety and physical exhaustion. The services of the nurses have generally been unusually prolonged, and their health, as a rule, remarkably good. Of those now resident two have served in the hospital seventeen years, one thirteen, &c. The two oldest nurses have recently died of old age and general decay, after having been long superannuated.

The gallery maids, engineer, dispensers and others all show a like record of freedom from phthisis. Of the staff of physicians and assistant-physicians—nineteen in number—only one has been affected with phthisis, and he was a young man of delicate and phthisical aspect.

The writer does not believe in the contagiousness of consumption, though he admits that cases now and then occur in which the disease has been developed in widowers or widows under circumstances apparently favoring the doctrine of contagion. The cases he has met have chiefly occurred among women. They do not, in the opinion of the author, support the theory of contagion. The union of husband and wife is not only a religious and social, but also a *physiological* one. It has often been remarked, for example, that after a variable period of married intercourse, the one person is seen to resemble the other, not only in manner and habit, but in features and expression. The offspring, too, of second marriages have been often observed to resemble in feature and character the husband or wife of the previous union. If certain natural and healthy peculiarities can be imparted from husband to wife, or *vice versa*, there is every reason to believe that morbid diseases, peculiarities and tendencies may be equally imparted. There is another and less obscure way in which we may fairly conclude that phthisis may be conveyed from husband to wife. A phthisical father may communicate to the *fœtus in utero* a consumptive taint, which may thus be transmitted to the mother, just as we know is often the case with secondary syphilis. It may be due to such circumstances that phthisis arising apparently from contagion occurs more frequently in women than in men. Dr. Cotton believes, therefore, that in one or the other of these ways—either by transmission through offspring or by a mysterious and inexplicable connection between husband and wife—phthisis may sometimes be developed in either of them, and that we need not resort to zymotic influences in explanation of such an occurrence.

In view of the hospital statistics above referred to, Dr. Cotton asks, "Must it not appear to all believers in the doctrine of phthisis originating in a special and contagious poison, that a residence in the Consumption Hospital, and long-continued working in its wards, is a very good way, indeed, *not to catch the disease?*"

THE SWELLED LEG OF FEVERS.—Dr. J. Warburton Begbie *(Edinburgh Med. Jour.*, Sept., 1872) considers that these cases may be classified as follows:—1st, cases dependent on vascular obstruction: *a*, venous; *b*, lymphatic. 2d, cases in which inflammation of the areolar tissue exists.

Pain and swelling are the characteristic features of interrupted circulation through veins. When the convalescent from fever is either suddenly seized with pain in one of the lower extremities, or the limb becomes the seat of gradually augmenting uneasiness succeeded by swelling, together with enlargement of the superficial veins, there can be but little doubt that obstruction to the return of blood through a large vessel exists. The swelling, besides being confined to the limb, presents a very different appearance from ordinary anasarca; it does not pit on pressure, but is firm and has a brawny feeling. The color of the skin, except where the prominent veins exist, is not much changed from that of health. There is always more or less constitutional disturbance, chilliness and discomfort being present, and not unfrequently the local affection is preceded by well-marked rigors. Sometimes very alarming symptoms have occurred, implicating the heart itself. The author supposes these sudden and alarming seizures to be due to the fact that a portion of clot, originally obstructing the femoral or iliac vein on the affected side, has found its way to the right chambers of the heart, where it may be detained, or passing thence through the pulmonary artery may reach the lungs.

In cases due to an obstructed state of the lymphatics, Dr. Begbie has noticed a distinct enlargement of the lymphatic glands in the groin of the affected limb. Moreover, the limb, besides being swollen and firm, as in the phlegmasia due to venous obstruction, wants entirely the notable prominence of the superficial veins, and has hyaline lines in various parts—not unlike the marks over the abdomen which are observed in women who have borne children—which may be justly ascribed to dilated cutaneous lymphatic vessels.

The painless character of the swelled leg of fever when due to lymphatic obstruction is in striking contrast with the suffering of the patient when the venous system is involved. Dr. Begbie has never known the serious results of blood-poisoning, nor of embolism, nor of purulent deposits in remote parts to occur in the cases arising from lymphatic obstruction. Yet as cases occur in which both systems, venous and lymphatic, are involved, in such the prognosis must be guarded.

The cases of swelled leg in which an *inflammation of the areolar tissue exists* have been especially characterized by the affection of both legs; first one and then the other becoming swollen. The swelling sometimes commences in the foot or lower part of one leg, and then, gradually rising upward to the thigh, ultimately affects the thigh of the other limb and descends to the leg and foot. An inflammatory condition of the areolar tissue would best account for this peculiar progress. Sometimes in these cases the lymphatic system does not escape implication, and then superficial abscesses may form. Embolism and metastatic inflammation do not occur, and while purulent absorption may under some circumstances be induced, this occurrence need not be dreaded as a likely event.

From American Journals.

COMPENSATION FOR EXPERT TESTIMONY.—The *Western Lancet*, Aug. 1872, has an article which considers the relation which the physician, when summoned as a witness, sustains to the Court and to the parties on trial.

It regrets that some in the ranks of the regular profession are so willing to be summoned as witnesses, and to act the part of retainers for the party calling them. It often happens that what is wanted by lawyers in a case is, not the most intrinsically valuable opinion, but the one which most favors their side. So easily can professional men be obtained to testify on either side, that the community at large, as well as the members of a puzzled jury, are apt to regard the testimony as valueless.

All regular physicians, though experts in the eye of the law, so far as purely professional matters are concerned, are not really so in many cases. So wide is the domain of practical and scientific surgery and medicine that it is impossible for one average human intellect to become thoroughly acquainted with it. A great deal of the opprobrium which is cast upon medical experts in Court would cease to be merited, if the Judge would exercise his right of satisfying himself, before admitting an expert to testify, that he is really entitled to that character.

There is an indirect method by which the same result might, perhaps, to a certain extent, be reached, and which lies wholly within the power of the medical profession as a body. When summoned to testify in a court of law, the physician like any other citizen is bound, as an ordinary witness, to testify to matters of fact within his knowledge. But when he is examined as a *skilled witness*, his position is changed. His skill and knowledge acquired by study and observation are his own private property, and he cannot be compelled to place his skilled knowledge at the disposition of the State, without adequate compensation, any more than he can be compelled to practise his profession gratuitously for the benefit of the public. If all State and County Medical Societies were to make it *incumbent* upon their members to demand a fee for giving testimony as experts, and the fee were fixed at a high figure, there would not be so many physicians as now summoned to testify in a case, and only men of high standing in their special departments would be likely to be called upon, as attorneys would have to depend more upon the reputation and skill than upon the weight of numbers of the medical experts summoned.

Punishment, too, might be inflicted upon members by their societies, for failing to charge the fee agreed upon for giving an opinion in court.

The *Lancet* regards it as a matter which comes primarily within the cognizance of the American Medical Association ; but in the absence of any direct action by it, the State and County Societies have the right, or rather owe themselves and the profession the duty, of making such regulations in the premises as justice and propriety demand.

CONGENITAL CYST OF THE NECK; OR, THE "HYGROMATOUS CYST" OF VON AMMON.—DR. WM. R. MCMAHON *(Medical and Surgical Reporter*, July 27, 1872,*)* reports that he was called, Aug. 28, 1870, to a child four days old, and found a tumor which reached from the lower part of the lobule of the left ear to within half an inch of the right ear. This tumor, with the head in the erect posture, completely filled the space between the upper part of the sternum and chin, projecting about an inch in front of the chin. The skin covering the cyst was of normal color, with the exception of a few ramifications of small vessels.

Fluctuation was not detected, yet the growth was semi-translucent. The introduction of an exploring needle showed that its anterior wall was only covered by the integument, superficial fascia and platysmmyoides. From the puncture oozed a limpid serum.

Active interference was postponed until the child should become stronger. A month later the cyst was larger, and respiration was imperfectly performed. The skin covering the cyst was now of a bluish tint, but there was no œdema of the head or face. Regarding active measures as yet premature, Dr. McMahon made an incision at the most pendant part, in order to palliate the symptoms. This procedure was successful.

November 20th, the cyst was found to be larger than at any previous visit. Deglutition and respiration were seriously impaired, and there were symptoms of passive congestion of the head and face. The condition of the patient demanded, if possible, a radical cure, for which a seton composed of two strands of silk was passed from one extremity of the cyst to the other. For the first forty-eight hours a serous fluid escaped from the exit and entrance of the needle, which so reduced the size of the cyst that there seemed to be nothing remaining but a redundancy of tissue.

On the third day there seemed to be no inflammatory action, so the seton was saturated with tincture of iodine, and drawn through the cyst. This was repeated daily for ten days, at the end of which time there was quite a purulent discharge, and sufficient inflammation to demand the withdrawal of the seton. External pressure was employed from the time of the introduction of the seton until the close of treatment. When suppuration and all inflammatory action had ceased, the only mark left to designate the site of this formidable cyst, was a slight redundancy of tissue. During treatment there was scarcely any febrile excitement or constitutional disturbance.

Correspondence.

Messrs. Editors :—At the present time, the following item, translated from the *Archives Générales de Médecine* for September, may not be without interest.

Academy of Medicine, meeting of July 23d, M. Léon Cohn, professor at Val-de-Grace, read a note on the isolation and treatment in special hospitals, of patients afflicted with smallpox. The author showed that the isolation of smallpox patients in special hospitals, is an imperative necessity at the present time, as a law of public hygiene.

Having had charge, during the siege of Paris, of the medical service of the hospital of Bicêtre, to which there were admitted nearly 8000 cases of smallpox, he had an opportunity to observe that such crowding together of patients affected with this disease was not attended by the inconveniences which one might expect, either in the case of the sick, among whom the mortality was not greater than elsewhere, or of the medical staff and attendants. A single attendant only, out of nearly two hundred, was carried off by the epidemic.

With regard to the population in the neighborhood of the hospital, the proximity of such a number of smallpox patients was undoubtedly a source of infection to the troops in barracks near by, who kept up a free communication with the general office in the centre of the hospital. The marines, however, stationed in the fort of Bicêtre, who had no communication with this office, were not attacked in greater numbers than the other marines in garrison in the different forts about Paris; showing that the contagion of smallpox is not easily diffused and transported by the atmosphere.

As a conclusion, M. Cohn proposes to build cheap smallpox hospitals in a circle outside of the fortifications, which can be burnt to destroy the miasm, after a certain time.

Boston, Oct. 1, 1872. S. L. A.

Boston Dispensary.—The following are the statistics of this institution for the year ending Sept. 30th, 1872. The number of new patients at the Central Office is 16,289, of which 11,471 are medical cases, and 4818 surgical, classified as follows :—

MEDICAL.

	Men.	*Women.*	*Children.*	*Total.*
1st quarter,	678	791	763	2232
2d "	989	863	693	2545
3d "	885	1520	864	3269
4th "	782	1488	1155	3425
Total,	3334	4662	3475	11,471

SURGICAL.

	Men.	*Women.*	*Children.*	*Total.*
1st quarter,	386	265	271	922
2d "	445	329	416	1190
3d "	496	372	476	1344
4th "	575	387	400	1362
Total,	1902	1353	1563	4818

The number of new patients in the Districts is as follows:—

	Men.	*Women.*	*Children.*	*Total.*
1st quarter,	345	752	849	1946
2d "	509	990	1056	2555
3d "	463	978	935	2376
4th "	406	924	1093	2423
Total,	1723	3644	3933	9300

Results.

Discharged, cured or relieved, - - -	8411
Sent to Hospitals, or removed from Districts,	568
Died, - - - - - - - - -	350
Under treatment, - - - - - - -	94
	9423
Under treatment at last annual report,	123
	9,300
Number of cases at Central Office,	16,289
Total number at Central Office & in Districts,	25,589

PATIENTS, NEW AND OLD, AT CENTRAL OFFICE.

	Medical.	*Surgical.*	*Total.*
1st quarter,	4039	1636	5675
2d "	5911	2085	7996
3d "	7178	2580	9758
4th "	6554	2020	8574
Total,	23,682	8321	32,003

Number of cases of midwifery, - -	110
Number of recipes, - - - -	47,727
Number of recipes since July, 1856,	705,012
Number of patients since July, 1856,	335,821
Average daily attendance, - - -	104

SURGEONS.

John Homans, M.D.
J. B. Treadwell, M.D.
Samuel W. Langmaid, M.D.
Francis B. Greenough, M.D.

Ophthalmic Surgeon—Oliver F. Wadsworth, M.D.

PHYSICIANS.

J. McLean Hayward, M.D.
Frederic I. Knight, M.D.
Wm. F. Munroe, M.D.
Charles E. Inches, M.D.
J. Franklin Appell, M.D.
Henry H. A. Beach, M.D.
Robert Disbrow, M.D.
Thos. Waterman, Jr. M.D.
Henry Tuck, M.D.
Alfred L. Haskins, M.D.
W. H. H. Hastings, M.D.
Wm. L. Richardson, M.D.

DISTRICT PHYSICIANS.

No. 1.—Charles P. Putnam, M.D.
No. 2.—John B. Fulton, M.D. (East Boston.)
No. 3.—Prince W. Page, M.D.
No. 4.—William J. Morton, M.D.
No. 5.—Josiah L. Hale, M.D.
No. 6.—Reginald H. Fitz, M.D.
No. 7.—Bennett F. Davenport, M.D.
No. 8.—Charles B. Belt, M.D. (South Boston.)

Eugene A. Gilman, M.D., Apothecary; Henry C. Durkee, Assistant Apothecary; Richard C. Brandt, Second Assistant Apothecary.

Samuel A. Green, M.D., *Superintendent.*

Medical Miscellany.

Dr. Anson P. Hooker, of East Cambridge, has been appointed Assistant Surgeon General of Massachusetts, by His Excellency, Gov. Washburn.

The College of Physicians and Surgeons of Syracuse University opened on the 3d instant, with a full corps of eighteen Professors.

The corner stone of the Buffalo Insane Asylum was laid September 18th, with appropriate ceremonies.

Dr. Moreau Morris has resigned the position of City Sanitary Inspector of the Health Department of New York.

Our able contemporary, *The Philadelphia Medical Times*, enters on its third year of publication on the first of October. It will, in future, be issued weekly, instead of twice a month as before. The price of the journal will be raised from four to five dollars.

Publications of the Mass. Med. Society.—The attention of our readers is called to the advertisement of the sale of the past numbers of the Publications of the State Medical Society. An opportunity is thus given to procure many very valuable contributions to medical science at a merely nominal price.

The British papers report the case of a Miss Hough, æt. 55, who died a quarter of an hour after being stung by a bee. The deceased was in her garden inspecting her bees when she suddenly called to the gardener that she had been stung. The gardener, on coming to her, removed a bee from her hair. She became unconscious, and died in a quarter of an hour. The body was examined, but the only lesion was a good deal of discoloration behind the ear around the sting. The physician who made the autopsy said there was but one sting, and that he thought death was caused by shock to the nervous system. Her brother stated that the deceased, in 1870, was stung by a bee, and that she became unconscious and remained so for two hours. The jury returned a verdict of "Death from Syncope, accelerated by the Sting of a Bee."

Elixir of Pepsin and Bismuth.—Emil Scheffer has shown by a series of experiments, reported in the *American Journal of Pharmacy* for August, that pepsin is precipitated from its solutions by the salts of bismuth, and that the elixirs of pepsin and bismuth, which are offered by several manufacturers, must owe any efficiency they possess to the alcohol and bismuth they contain.

Preservation of Meat and Vegetables.—At a recent meeting of the Academy of Sciences, M. Sacca showed specimens of meat and vegetables preserved by the aid of acetate of soda. The proportion which he recommends is two pounds of acetate of soda for eight pounds of meat or vegetable. To render the substances so preserved eatable, they must be treated with hydro-chlorate of ammonia. Acetate of ammonia is then formed, which is "easily washed out," and common salt, which serves as a condiment. Max Schultze, of Berlin, long since recommended the use of the alkaline acetate for the preservation of microscopical specimens, but no one was expected to eat them afterwards.

On the Pigments of Bile and Urine.—Jaffe (*Arch. Pharm.* (2), cxlv., 148) finds that, when bile is exhausted by hydrochloric acid, a pigment is obtained which is probably identical with the normal urinary pigment, as they both present the same spectra, and give the same reactions. The urinary pigment is not so easily decomposed as is generally imagined, for its spectrum was not destroyed by boiling with dilute mineral acids or alkalies; nor was it altered in urine which had stood for a week and was quite mouldy, though not putrid. The paper contains, also, a new method for obtaining pigment from bile.

Books Received.—General and Differential Diagnosis of Ovarian Tumors, with especial reference to the Operation of Ovariotomy. By Washington L. Atlee, M.D. Philadelphia: J. B. Lippincott & Co. 1873. Pp. 482. (From James Campbell.)

Errata.—On page 211, second column, line 43, for "prevents" read *permits*. Page 243, 12th line from bottom of 1st column, for "thirty" read *three*. On page 247 of this number, 3d line from bottom of 1st column, for "rescue" read *secure*.

Deaths in fifteen Cities and Towns of Massachusetts, for the week ending Sept. 28, 1872.

Cities and Towns.	*No. of Deaths.*
Boston	147
Charlestown	17
Worcester	26
Lowell	29
Milford	10
Chelsea	9
Cambridge	14
Salem	12
Lawrence	19
Lynn	20
Fitchburg	3
Newburyport	2
Somerville	9
Haverhill	6
Holyoke	4
	327

Prevalent Diseases.

Consumption	55
Cholera Infantum	47
Typhoid Fever	24

There were eighteen deaths from smallpox in Boston and one in Charlestown.

George Derby, M.D.,
Secretary of State Board of Health.

Deaths in Boston for the week ending Saturday, October 5th, 141. Males, 74; females, 67. Accident, 5—abscess, 1—apoplexy, 2—inflammation of the bowels, 2—bronchitis, 2—inflammation of the brain, 2—congestion of the brain, 1—disease of the brain, 3—cyanosis, 1—cancer, 1—cholera infantum, 8—cholera morbus, 1—consumption, 25—convulsions, 4—croup, 1—debility, 1—diarrhœa, 4—dropsy of brain, 1—diabetes, 1—dysentery, 1—dyspepsia, 1—erysipelas, 1—scarlet fever, 2—typhoid fever, 9—fever, 1—disease of the heart, 7—hæmorrhage, 1—homicide, 1—disease of the kidneys, 3—laryngitis, 1—disease of the liver, 2—congestion of the lungs, 1—inflammation of the lungs, 5—marasmus, 4—osteomalacia, 1—old age, 4—paralysis, 2—premature birth, 1—peritonitis, 1—rheumatism, 1—syphilis, 1—smallpox, 17—tetanus, 1—unknown, 4.

Under 5 years of age, 43—between 5 and 20 years, 21—between 20 and 40 years, 32—between 40 and 60 years, 24—above 60 years, 21. Born in the United States, 86—Ireland, 28—other places, 27.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

New Series.] Thursday, October 17, 1872. [Vol. X.—No. 16.

Original Communications.

THE ORIGIN AND SIGNIFICATION OF THE SYMPTOMS OF BRAIN DISEASE.

A Lecture delivered in Boston, Oct. 5th, 1872, by C. E. Brown-Sequard, M.D.

Reported for the Journal by S. G. Webber, M.D.

The lecturer stated that he found the task a difficult one to condense all he wished to say into the time allowed for one lecture; he would therefore occupy the present lecture chiefly in refuting certain views which are an obstruction to progress, reserving for another time the process of rebuilding new views.

According to the view for a long time held by medical men, the brain is an organ which serves to induce action in other parts of the body, and which in turn receives the impressions made upon various portions of the body; it is, in fact, the centre for various functions. A great modification must be made in this view; we must now recognize more centres for volition and more for perception than have been hitherto admitted.

It is generally considered that the hemispheres of the brain act each on the opposite side of the body. Dr. Brown-Séquard thinks he can establish the fact that one hemisphere is sufficient to act on both sides of the body, can cause motion in both sides and can perceive sensations coming from both sides. It is at first difficult to admit this view, for so many facts apparently show that injury in one hemisphere destroys motion and sensation on the other side of the body.

The time would not suffice to go fully into the views of Carpenter and Broadbent. The latter has shown that in cases of cerebral disease, the knees, the tongue, the face and a few of the muscles connecting the limbs to the trunk are the ones paralyzed. He considers that the medulla may give rise to an influence which will cause both eyes to act; so if the left side of the brain is diseased, the affection of the muscles of the trunk is not confined to one side, for the medulla acts on both sides. This view Brown-Séquard thinks cannot be correct, for cases of disease of the medulla disprove it.

It is the common view that paralysis is due to destruction of brain tissue, and that excess of action is caused by irritation of a diseased part; but we know that a limb may be both paralyzed and convulsed at the same time, which are directly opposite conditions, according to this view.

Cases occur of disease of the brain on both sides without any symptoms, even extensive disease, which must have existed many months before death; there are also cases of symptoms of brain disease without signs of actual disease of that organ, even after careful microscopic examination, symptoms such as paralysis, coma, convulsions and others without disease, with no toxæmia or alteration of the blood to produce them.

Again, there is no relation between the intensity of symptoms and the extent of the disease. The same disease may be found in different people with different symptoms, and the same symptoms may accompany different diseases. Disease of any of the viscera, as the liver or kidneys, may produce symptoms of brain disease by alteration of the blood, producing a poison; this poison must be the same in each case of kidney disease, but the symptoms are not the same. It must be that there is another cause in action at the same time with the toxæmia. This is the irritation of the nerves of the viscus, and it is to the variation in this irritation of the nerves that varying symptoms are due.

A prick of a lung may give rise to partial closure of the eye and constriction of the pupil on the same side. If a simple prick will produce such phenomena, then inflammation of a large mass of the viscus may produce greater disturbance—as, for instance, pneumonia, which may give rise to paralysis, continuing even after the pneumonia has passed away. Many facts show that loss of power is not due to lesion of the brain alone. Reference was made to cerebral tumor with symptoms of varying intensity, at times resulting in almost complete recovery. Symptoms also may disappear just before death, as in cases of insanity, and yet the autopsy show great disease of long standing.

Disease of the membranes may be compared with that of the brain; the former may cause all the symptoms of the latter, and some, as convulsions, may occur even more frequently from meningeal than cerebral trouble. As the pia mater lies next the brain, it might be supposed that disease of it would cause more cerebral symptoms than disease of the dura mater. Affections of the latter, however, are more similar to disease of the brain than those of the pia mater. This may show that disease of the brain itself may cause symptoms by irritation acting on other parts of the brain.

Disease of the mucous membrane and of the skin may cause symptoms of brain disease. A young gentleman had all the symptoms of softening of the brain and general paralysis. On examination, it was noticed that he carried his hand frequently to his penis. An inflammation was found at that point, which by proper treatment was cured, and in a week the cerebral symptoms had disappeared.

If the difference in action in the two sides of the brain be studied, it will also be perceived that symptoms do not arise from direct destruction of function. In regard to aphasia, some symptoms appear when the right side is diseased; it is generally, however, found in disease of the left side. The loss of intelligence is most marked in disease of the left side, and the mechanical part of speech is more altered.

When the right side of the brain is affected, lesions indicating alteration of nutrition are more frequently found. In animals, hæmorrhage in the lung and œdema of the lung are found in lesions of the right side, especially at the base; or there may be congestion in one part and œdema in another. In this œdema it is found that there are no red corpuscles in the vessels; some serum is found around them, but they are filled with white corpuscles. So in man, hæmorrhage and inflammation in the lung are more frequent when the disease is on the right side. Optic neuritis in one or both eyes is more frequently seen in disease in the right of the brain. The tumor of the lobe of the ear (hæmatoma auris), so often seen in insane asylums, and attributed often to mechanical injuries, is due to nervous influence; it may be produced at once by injury to the base of the brain. It may be caused in animals within a few hours, and may be followed even by gangrene. The left ear is the one generally affected, opposite the seat of disease in the brain.

Two other alterations of nutrition are more frequently seen in disease of the right side of the brain than the left—œdema of paralyzed parts and bed-sores. The latter lesions, as may be observed, are on parts opposite the seat of lesion in the brain, and are not the result of pressure.

In most cases of epilepsy, cerebral lesion is confined to the right side. The deviation of both eyes is met with more frequently when the lesion is on the right. So, too, the paralysis of limbs is more considerable and more lasting. Phenomena of hysteria are more frequently located on the left side. In nine cases where the convolutions were affected with the paralysis on the same side, it was twice on the left, seven times on the right. With other parts affected, fifty times the lesion was on the right, with the paralysis on the right. Hæmorrhage on the right side destroys the patient quicker than when it is on the left. Among animals, of 28 injured on the left side, 16 survived; of 47 injured on the right, only 11 survived. If lesion of the right side causes changes in nutrition, as already mentioned, it is natural that more deaths should occur than when the left side is injured.

One side of the brain is sufficient for the functional integrity of both sides of the body. If the outer half of the right eye and inner half of the left eye receive fibres from the right side of the brain, as has been described, then injury of the right optic tract should cause hemiopia. This has been found to be the case. But disease in the optic tract may also cause hemiopia in one eye, or may cause amaurosis in both sides of the opposite eye, or of both sides of the corresponding eye. These views are contrary to those generally entertained. It may also cause amaurosis on opposite sides of each eye. Destruction of the tubercular quadrigemina on one side and of the neighboring optic tract has been known to cause no amaurosis. It must then be admitted that one optic tract is sufficient to transmit visual impressions to the brain, and half of the brain may serve for vision in both eyes. In animals it is found that irritation at a distance from the eye may produce amaurosis. Injury to the medulla oblongata will cause amaurosis on the same side, and injury in front of the medulla oblongata, amaurosis on the opposite side. Amaurosis may be caused by irritation of other parts, as of the facial nerve, or by disturbance of the intestines, as by the presence of worms. In these cases, it is the nutrition of the retina and of the brain which is affected.

As disease of the right side may produce aphasia in right-handed persons, so it may arise from other causes than loss of function of the third left frontal convolution. Without any organic lesion in any part, aphasia may be present. It may come and go with peripheral irritation. It may be found in connection with lesion of other parts of the left hemisphere than the third frontal convolution. Aphasia is rare in children, and there may be atrophy of the left side of the brain without aphasia.

Again, disease of the third left frontal convolution may exist without aphasia, as in the case reported by Drs. Bigelow and Harlow where the crow-bar passed through a man's head; in another case, a ball destroyed that convolution without causing aphasia, and the man was not left-handed. Aphasics with disease of the third convolution have been known to talk when insane. There are, also, cases of sudden recovery from aphasia. General paralytics often speak badly, and their third frontal convolution is diseased like the rest of the brain.

Hemiplegia, as a symptom of brain disease, varies greatly; it may not exist with great disease, or it may be present when there is slight disease. In complete hemiplegia, there is always some paralysis of the opposite side, with disease of only one side of the brain. Irritation, then, may affect the nutrition of the opposite side, and so cause paralysis.

The anterior pyramids decussate. A disease of the crus cerebelli, or the restiform body or the part of the pons near the root of the fifth nerve on which the crus cerebelli is implanted, a tumor, for instance, pressing on those parts, causes paralysis on the same side. If, instead of pressure, there is destruction of the part, there ought to be paralysis on both sides, if, in the former case, the paralysis on the same side was due to destruction of superficial fibres, for both the deep and superficial fibres are, in this case, implicated. Only one case is known where both sides were paralyzed. In other cases, there has been considerable disease without paralysis. So when the disease is the cause of paralysis in the same side it is by the action of irritation in other parts. The symptoms are not caused by loss of function or by irritation at the part affected.

Can we form a diagnosis? Yes. Disease of the base in affections of the brain causes symptoms differing according to the nerves implicated. Aphasia may occur, generally, with one lesion, and a diagnosis be made as if the old view of brain disease were correct; and so of other symptoms.

By what mechanism are the symptoms caused? There are two classes, those of irritation and those of cessation of activity. Reference was made by the lecturer to the inhibitory phenomena in connection with the heart and respiration. As certain irritations cause the cessation of the heart's action and of respiration, by influencing nerve cells, so the will can act to check or stop the action of the respiratory centres, or of the centres for action of the sphincter muscles; so, also, it may stop spasms, as coughing or sneezing. Some symptoms of disease may be prevented by inhibitory action.

A case of the latter was shown by a negro and his master. The latter had disease of the spinal cord, one symptom being general rigidity, with convulsions on being touched. The negro stopped these by drawing on the big toe of his master, and so, during the interval of quiet, was enabled to dress him. In Guinea pigs in which epilepsy has been produced artificially, the spasms may be stopped by the action of carbonic acid gas on the larynx, for which purpose the tube conveying the gas must be passed well into the mouth near to the larynx. Cauterization of the larynx in epilepsy has been proposed, and performed a few times with success, especially when the muscles of the larynx seemed implicated in the fit.

A prick of the posterior columns may produce paralysis at once, and so of other parts at a distance from the brain. So we may understand that the brain, having also nerve fibres, may affect other parts.

Treatment of Hæmorrhage from the Bowels in Typhoid Fever.—Dr. S. Weed (*Buffalo Med. and Surg. Journal*, August, 1872) reports five cases in which this complication arose, in some of them the loss of blood being very great. All the cases recovered under the use of oil of turpentine. It was given at first in teaspoonful doses once an hour, or oftener if necessary, and after two or three repetitions twenty drops were prescribed to be taken every two hours.

Progress in Medicine.

REPORT ON PATHOLOGY AND PATHOLOGICAL ANATOMY.

By R. H. Fitz, M.D. Harv.

General Pathology.

Infection.—Prof. Klebs has recently published (Leipzig, 1872) a work on the pathological anatomy of gun-shot wounds, in which he states that he has found as the cause of infection in pyæmia and septicæmia a parasitic fungus, called by him *microsporon septicum.* Under his direction a series of investigations were instituted by Zahn and Tiegel (*Centralblatt,* 1872, p. 216). The former established the fact that this fungus produced inflammation and suppuration; the latter that it gave rise to fever. Tiegel cultivated the fungus, and was able to exclude the presence of all material except that produced by the fungus in certain of his experiments. He showed that when a fluid containing the same was introduced into the body, a fever was produced whose curve was analogous to that of the fever produced by sepsine (discovered by Bergmann and Schmiedeberg in 1868 in putrid wounds). Tiegel concludes that sepsine must be present in this fluid, though he was unable to isolate it. He then inferred that sepsine is produced by the fungus, as it is improbable that the fever should be produced simply by its mechanical action.

Theoretically, the sepsine produces the fever chemically by causing a higher degree of oxidation in the tissues and blood; or it acts through the central nervous system (Stricker.) The rapid putrefaction of bodies dead from septicæmia favors the first idea.

Nepveau (*Gaz. Méd. de Paris, The Med. Record,* 1872, Nos. 145 and 146) states that he finds bacteria in the blood of patients suffering from erysipelas, idiopathic or traumatic; whether they always occur in both forms is not established.

Waldeyer (*Archiv f. Gynækologie,* 1872, iii. p. 293, *Centrbl.,* 1872, p. 251) examined the diphtheritic membrane from the inner surface of the uterus, the contents of the lymphatic vessels, the peritoneal exudation in four cases of puerperal fever, and in one case the pleuritic and pericardial exudation were also examined. In all these places an immense number of bacteria were found; in the diphtheritic patches, between the pus corpuscles and the modified tissue elements; in other parts, mingled with pus corpuscles, also within the same. The pus corpuscles in the peritoneal fluid were especially filled with the bacteria and the fluid was crowded with them. In the main they were the globular bacteria of Cohn, though in part they were the rod-like micro-bacteria.

Though Waldeyer does not attribute extreme importance to their presence, still their occurrence in such quantities does not seem to him a matter of indifference; they must render the course of the disease more severe. The regular continuous extension of the puerperal process suggests an independent advancing infectious material. Waldeyer regards the dark granular masses, with difficulty rendered clear, as described by Virchow in parametritis puerperalis, as bacteria; and the lymph thrombi instead of being coagulated lymph are pus corpuscles and bacteria.

Orth (*Archiv d. Heilkde,* 2 and 3 Heft, 1872, *Allg. Centr. Zeit.,* 1872, No. 52) publishes a most interesting case with reference to the effect of fungi in producing disease; also with regard to the essence of puerperal fever. The mother was examined fourteen days before her expected delivery; on the following day, abdominal and sacral pains came on, lasting till delivery, three days after the examination. Before the birth was completed the temperature became elevated, remaining so for the two days following, then became normal for five days, when it again rose, and a perimetritis of the left side was made out. The child seemed well the first day after birth, then refused nourishment, breathed with sobs, became comatose, and died after three days. At the autopsy there were found hæmorrhages beneath the capsule of the left kidney, hæmorrhages and abscesses of the lungs, and pleurisy with exudation. In the pleural false membrane numbers of small glistening bodies were found, forming groups like the zoöglea forms, in and between which the pus corpuscles were enclosed.

In different specimens of fresh blood were large amounts of the round bodies; also a number of the mycothrix chains of Hallier.

Micrococci were found in the alveoli of the lungs, in their vessels and bronchi, and in milliards in the superficial layers of the pleuræ. As the umbilical cord and vessels were normal, Orth considers that the entrance of the parasites must have been intra-uterine, from the maternal blood, which was probably infected three days before the birth. It is further supposed that an abscess of the lung was first produced; thence the parasites entered the pleural cavity, then into the pleura, as the pleural vessels contained none. Spores were also found in the bladder, and were supposed to have entered from the kidney, in the urine.

Origin of Pus Corpuscles.—F. A. Hoffmann (*Virch. Arch.* vol. liv., 4 Heft), with P. Langerhans, has already shown that some time after the injection of cinnabar into the bloodvessels, grains of the same could be found in the fixed cells of the connective tissue, and that whenever an irritation had occurred, the accumulation of pigment in these cells became so great that one could recognize the place with the naked eye from the red color.

Hoffmann (in the present article) states that wounds were produced and afterwards cauterized, or dilute acetic acid was injected; twenty-two to twenty-four hours after inflammation was thus excited, injections of cinnabar were made.

The pus from the wounded surface contained no cinnabar, yet the tissues from which the pus came contained cells in which were numerous particles of cinnabar; these cells corresponded completely with the so-called fixed connective tissue cells. The pigment was also found in clumps, imbedded in a dense, fibrous stratum; tearing apart these clumps, there were found grains of cinnabar, free or sticking to the tissue fibres, cells containing pigment and débris of cells. These were, doubtless, the remains of encapsuled abscesses. Apart from them, free cinnabar granules were not found in the connective tissue. Hoffmann infers that the fixed cells take no part in the production of pus, but remain wholly passive. Were they destroyed, the cinnabar must be set free after seven to nine days' suppuration, and be found as such, or taken up by the wandering cells. Were they active, it would be probable that cinnabar would appear in the pus, especially as the pigment was found in large amounts in the vicinity of the suppurating surface. Hoffmann had previously shown that cell proliferation in the extirpated cornea occurs, and, from negative testimony, he inferred that the increase proceeded from the fixed corneal corpuscles.

Stricker has found that the wandering cells are capable of division after leaving the vessels, hence the previous inference cannot be regarded as doubtful.

In conclusion, he states, "Up to the present time, any other source for pus corpuscles than the bloodvessels has not been proven nor placed upon a scientific basis."

Prof. Schiff, in a lecture before the Academy of Sciences, at Florence (*Berl. Klin. Woch.* 1872, No. 14), asserts that in extensive suppuration the white blood-corpuscles might be replaced in a manner suggested by the experiment of enucleation of the spleen. When this operation is performed on dogs, these corpuscles increase if the animal remains healthy; much more so if peritonitis follows the operation. He asserts that the increase of these depends upon an irritation of the inner coat of the bloodvessels; the more extensive this is, the greater the increase. One can, therefore, regard these as the product or transformation of the epithelial cells clothing the intima. This condition might be called a catarrh of the same.

Amyloid Degeneration.—The time required for the development of amyloid degeneration following long-continued suppuration, no other cause being apparent, was found by Cohnheim (*Virch. Arch.*, vol. liv. p. 271–275) in three cases to take place within a few months. Three soldiers, previously healthy, were wounded in August, and died from four to six months afterwards. In all three cases, amyloid degeneration of the spleen was present, and in one certainly, in another probably, similar degeneration of the kidneys.

General Pathological Anatomy.

Rinderpest.—Bollinger (*Arch. f. Thierheilkunde*, xxiv, pp. 261–272. *Centrbl.*, 1872, p. 106). Though this subject might be beyond the scope of the present report, the general interest with regard to this disease, and the well-known authority of Prof. Bollinger, together with his opportunities for observation, have urged the introduction of the following abstract.

The anatomical alterations are those of the original seat of disease, of the intestinal tract and of the various organs. In the early stage of the disease, a more or less marked, at times hæmorrhagic, redness and swelling, especially of the lymphoid apparatus, is found in the region of the peptic glands and the upper portion of the small intestine. Lower down, towards the large intestine, the entire mucous membrane is densely infiltrated and friable, of a dark red color, in part from injection of the vessels, in part from hæmorrhages into the tissue. The surface is covered with an abundant layer of tenacious, bloody mucus.

Later, grayish yellow or red false membranes are found at intervals upon the surface of the mucous coat, loosely adherent; when separated, more or less deep erosions are presented. The entire series of alterations are those of catarrhal, hæmorrhagic and diphtheritic inflammation.

An analogous affection of the mucous membrane of the respiratory, urinary and genital apparatus is also found; also numerous minute hæmorrhages in the various mucous membranes, the pleuræ, pericardium, endocardium and lungs; further, a dark color and increased density of the blood. A parenchymatous degeneration of the liver and kidneys is very constant, and of the myocardium to a less degree, occurring so early in the disease as to be almost pathognomonic where the intestinal alterations are but slightly marked. Corresponding with the constant albuminuria is found extensive fatty degeneration of the kidneys.

Bollinger observes analogous alterations resulting from putrid infection, whether the same occurs spontaneously or is produced artificially.

Malignant Pustule.—The same author (Bollinger, *Centrblatt,* 1872, p. 417) gives the results of numerous observations and experiments with regard to this disease, rendered all the more interesting by comparison with the report on infection.

In the blood of diseased animals (neat-cattle and horses) there are found almost constantly during life and after death, rod-like bodies.

If these bodies are absent, the blood from the animal, after inoculation, will produce malignant pustule, and the blood of the animals thus inoculated may contain these bodies. Bollinger explains this fact on the ground that bacterium germs are in the blood thus used, which produce bacteria after inoculation. Where the anthrax blood contains bacteria it may be inoculated and produce the disease without the bacteria, but the blood of the animal thus acted upon contains the germs which may develope after death into the rod-like bodies. A thorough description is given of these bodies, and it is stated that they may be distinguished from other bacteria by their form, &c. They can be preserved when dried, but are destroyed by putrefaction; their development depends upon the presence of oxygen. Putrid anthrax-blood in which the bacteria are destroyed never produces malignant pustule by vaccination. The enzoötic malignant pustule occurs among animals without reference to season, species, age or sex. The diseased animals are, without exception, well-nourished, and generally those which are placed in the infected stalls a short time before the manifestation of the disease. The transmission of the contagium takes place without the means of insects (flies). The described cases of mycosis intestinalis among men are to be considered as rare forms of malignant pustule, though the disposition of the human species to this disease is slight. The parasitic nature of anthrax, apart from other experimental and anatomical facts, is mainly proven from the fact that the clinical and anatomical appearances, especially in the apoplectiform and active varieties, can be declared from the physiological qualities and effects of the anthrax bacterium. The chemical effect of the bacterium in the living body is due to the enormous chemical affinity of these bodies for oxygen, which they remove from the red blood-corpuscles; want of oxygen and excess of carbonic acid produce the symptoms, dyspnœa, cyanosis, convulsions, dilated pupil, sinking of temperature, and, finally, asphyxia. All the changes as in poisoning by carbonic acid are found after death. The apoplectiform cases correspond with the fatal cases from prussic acid; the appearances in the latter are the same as in apoplectiform anthrax.

Chronic Lead Poisoning.—Kussmaul and Maier *(Deutsches Arch. f. Klin Med.,* 9, 3, *Berl. Klin. Woch.,* 1872, p. 132) examined the body of a house-painter who had been under observation during repeated attacks of this disease, and who died suddenly during an attack of colic. Chronic catarrh of the entire intestinal tract was present, atrophy of the gastric glands, fatty degeneration of the muscular coat of the stomach in the pyloric region and of the small intestine; atrophy of the mucous membrane of the jejunum, ileum and ascending colon; thickening of the submucous coat of the stomach and intestines, with thickening and condensation of the sheaths of the small arteries. The sympathetic showed several indurated ganglia, especially the cœliac and superior cervical. In the brain, a slight degree of periarteritis, especially in the cortical substance.

Tuberculosis.—The following is abstracted from a series of six experiments performed by Paraskeva and Zallouis *(Gaz. Méd.,* 1872, No. 17, *Centrblatt,* 1872, p. 413). The account of the autopsy is so incomplete that no special weight can be attributed to the observation. A fisherman, æt. 55, previously healthy, without hereditary predisposition to tuberculosis, died of gradually advancing gangrene. Five weeks before his death, the purulent contents from a cavity in a tuberculous individual was injected into the cellular tissue of the left hip. The autopsy showed at the top of the right lung seventeen hard tubercles of the size of a lentil, two at the apex of the left lung, and two of the size of peas on the convex surface of the liver.

Neureutter *(Oest. Jahr. f. Paediatrik*, 1871, p. 105) gives the analysis of the autopsies of 210 cases of miliary tuberculosis in children. Sex.—101 boys, 109 girls.

Age.—from birth to 1st year 18,
1st " 4th " 101,
4th " 8th " 60,
8th " 14th " 31.

In 107 cases miliary tuberculosis alone was present; in 103 cases it was secondary, as an acute attack, to an existing chronic tuberculosis. In all, excepting 18 cases, the lymphatic glands were diseased, either cheesy or containing gray or yellow nodules, of varying size, isolated or in groups. Among the 18 there was but one case, a boy of ten weeks, where no cheesy nodule could be found; the others contained such in brain, lungs or bones.

Chronic inflammation of the lungs, cheesy pneumonia, was the most frequent disease accompanying the miliary tuberculosis. Miliary tuberculosis of the meninges, without participation of the lungs, occurred 18 times; in 4 cases only was a miliary deposit in other organs (spleen, liver, kidneys). In the other 14, the meninges were the sole seat of tuberculosis, and in three of these cases there were also cerebral tubercles.

Miliary tuberculosis of the membranes, with simultaneous disease of the lungs, occurred in 50 cases, in 38 of which other organs were the seat of miliary disease. Miliary tuberculosis of the lungs, without meningeal tuberculosis, occurred in 142 cases, 98 of which had miliary tubercles of other organs.

With regard to the origin of the giant-cell in tubercle, Prof. Schüppel makes the following communication *(Arch. d. Heilkunde*, 1872, p. 69). A previous paper is referred to, in which he states that the tubercle in lymphatic glands occurs in the follicles, always commencing with the appearance of a giant-cell in the previously healthy gland tissue.

In the present article he describes the appearance of a finely granular mass, to be found in the minute bloodvessels, sometimes as three or four clumps, which he regards as protoplasm from which the giant-cells develope. The vessels containing this material were allied in structure to the minutest veins, though rarely similar bodies were found in the capillaries and minute arteries. Nuclei then make their appearance in varying numbers, as many as sixty. The form of the mass then changes from globular to angular, with scalloped borders, which change of shape is regarded as an evidence of active power of motion.

The tubercle, at the acme of its development, shows, in addition to one or more giant-cells, a number of epithelial cells, whose protoplasm resembles that of the giant-cells. Schüppel considers it as probable that the cells of the tubercle may originate from the giant-cell, by separation from its mass; also from proliferation of these new cells. The reticulum is regarded as newly formed, first making its appearance with the advance of cell-formation outside the giant-cell, its meshes being regarded as differentiated protoplasm of the latter.

Lymphatic Growths following Diphtheritis.—The case of a woman with pharyngeal diphtheritis, accompanied by relapses extending over a period of six months, is reported by Roth (*Virch. Arch*,, vol. liv. p. 254, *Centrbl.*, 1872, p. 494). There were found at the autopsy old and recent diphtheritic cicatrices, atrophy of the heart, fresh broncho-pneumonic infiltrations in the lower lobes of both lungs.

In both kidneys and in the entire digestive tract were peculiar gray, white and red, soft nodules, in the former varying in size from that of millet to beans, in the latter from that of hemp-seed to peas. In the kidneys, they commenced upon the surface, from which they entered the parenchyma for a considerable distance. In the stomach and intestine they were a submucous infiltration, causing an elevation of the partly unaltered, partly superficially ulcerated mucous membrane. Very small, sub-miliary nodules were found in the mucous membrane of the renal pelves, bladder, larynx and trachea. Pulp and follicles of the spleen hyperplastic. The lymphatic glands of the body, especially those of the mesentery, were similarly altered. There was no perceptible increase of the white blood-corpuscles.

Microscopically, the renal deposits agreed structurally with the leucæmic new-formations described by Virchow. In the other parts, they appeared as accumulations of small, round cells, while numerous analogous infiltrations occurred in the interacinous tissue of the apparently simply enlarged liver.

Rapidity of Growth of Malignant Tumors.—Hahn *(Allg. Med. Centr. Zeit.*, 1872, No. 47) presented to the Berlin Obstetrical Society a specimen of sarcoma of the right kidney, from a child of ten months, which had developed to the size of a child's head in four weeks.

Monti *(Jahr b. f. Kinderheilkde*, 1872, p. 321) narrates the case of a boy, æt. 9, of healthy parentage, who lived two and a half months after the commencement of his symptoms. The diagnosis of cancer was confirmed by the use of the exploratory trocar.

At the autopsy, cancer (round cell sarcoma) of the kidney, liver, retro-peritoneal glands, lungs and pleura was found. The kidney was five times, the liver twice the ordinary size, and the diseased retro-peritoneal glands formed a fluctuating mass three times the size of the first. There were extensive hæmorrhagic false membranes on the peritoneal surface of the various abdominal organs, and four to five pounds of hæmorrhagic fluid in the peritoneal cavity.

Dr. Stokes (*Dublin Journal of Med. Science*, July, 1872) reported to the Dublin Pathological Society the case of a man, æt. 22, who died after an illness of ten weeks, the prominent symptoms being anasarca, ascites, and the presence of about twenty hard nodules, of the size of hazel-nuts, to be felt through the abdominal parietes. At the left sterno-clavicular articulation was a tumor as large as a pullet's egg. The large tumor appeared intermediate between colloid and encephaloid. The anterior mediastinum was filled with a similar growth; like tumors were in the lungs, also in the heart, in the mesenteric and intestinal glands. The liver was unaltered. Masses were found upon the pleural surface, in many places melanotic.

[To be concluded.]

Epilepsy cured by the Use of Bromide of Potassium and Sulphate of Atropia.—Dr. L. P. Yandell, Jr. *(The American Practitioner*, Sept., 1872) reports three cases of the above disease. In the first, a girl 13 years of age, the bromide alone had been used in full doses for many months without relief. Dr. Y. gave her twenty-six grains of the bromide three times a day, and one hundredth of a grain of the sulphate of atropia night and morning. The attacks soon became less frequent, and in seven months had apparently disappeared. She was directed, however, to continue the medicine twelve months more.

Reports of Medical Societies.

BOSTON SOCIETY OF MEDICAL SCIENCES.

EDWARD WIGGLESWORTH, JR., M.D., SECRETARY.

May 28th, 1872.—The Society met at the house of Dr. Amory, Dr. Richardson in the chair.

Du Bois Reymond's "Sledge-apparatus" for generating the Faradic Current.—Dr. Lincoln exhibited the "sledge-apparatus" of Du Bois Reymond, which was described in the report of the last meeting, but was under repair at that time. He showed how the hand holding the electrode could be made to vibrate rhythmically at the rate of four times in a second and upwards, thus demonstrating the rate at which the current was interrupted; also, how the irregularity in the supply of force (from a Smee battery) made the vibration irregular in extent. The Smee element is inconstant; the Leclanché (constant) makes the apparatus work with great smoothness.

The Micro-spectroscope.—Dr. Amory exhibited and explained the method of using a micro-spectroscope. The instrument was obtained from Messrs. Beck, of London, and consisted simply of a tube carrying a direct vision system of five prisms and an achromatic lens, below which are two movable screws which can shut off the light transmitted from the mirror belonging to the microscope into which the spectroscopic eyepiece may be fitted. In addition, this eyepiece has another adjustable slit on its side, and by means of another prism the spectrum of an object placed upon a stage in front of the slit may be brought into focus and compared with the object placed upon the stage of the microscope. In this way the observer perceives two spectra, one superposed upon the other, the lower one being that of an object exhibited under a low power of the microscope, whilst the upper one is the spectrum of some known substance, and is not magnified by the microscope. Dr. Amory stated that he had received the instrument only a short time since, and had not experimented with it to any extent. His experiments had been confined to the spectra of blood, taken from healthy animals, and from those killed by carbonic oxide or chloroform inhalation, as well as from those killed after a certain dose of chloral.

The micro-spectroscope is useful only for the examination of absorption bands; and, as the intensity of these bands depends upon the concentration of the liquids, it was extremely difficult to obtain results of analysis which might be considered thoroughly trustworthy.

Dr. Amory also exhibited an accessory apparatus which could be adjusted to the stage in front of the slit, and in which were two polarizing prisms by which the rays of light were so refracted as to produce in the spectrum a series of ten equidistant vertical lines; by means of this scale the position of the absorption bands of any substance under examination can be definitely ascertained by night as well as by day. In daylight, the position of the Frauenhofer lines in the spectrum can be determined, so that this scale need not then be used.

Dr. Amory exhibited certain plates illustrating the spectra of blood in different degrees of solution in water, of permanganate of potassa, of lobelia, of aniline red, of henbane, &c.

Dr. Ellis asked if any use could be made of the instrument in determining the degrees of spanæmia in patients suffering from deterioration of the blood.

Dr. Amory stated that the spectroscope could merely determine the presence of hæmoglobine contained in the blood corpuscles which may afterwards be dissolved in water; and from the fact that the different degrees of concentration can be as easily detected by the eye without the instrument as with it, the different degrees of spanæmia could not be determined by the microspectroscope in its present condition with any additional definiteness. The amount of hæmoglobine present determines definitely the width of the absorption bands and the color, it is true, but these are no easier to be judged of by the eye than are the shades of difference of color presented to the naked eye by solutions of blood of varying intensities. If, for example, we have 100 parts of blood in 100,000 of water, the simple addition of four elements of blood produces a perceptible alteration in the color of the solution.

Dr. Ellis asked if other materials, in solutions varying in intensity, produced similar changes in the absorption bands.

Dr. Amory responded that the spectroscope could be employed for the examination of many objects, gases and metals even, that it was a delicate instrument and requires the volatilization of the ingredients employed, that the width of the absorption bands varies with the intensity of the solution of the blood corpuscles, but that a band drawn in the centre is always constant, that certain other substances prevent the transmission of different rays of color, and their presence is to be determined by this rather than by the width of the bands.

Dr. White, in this connection, spoke of the practical recognition of hæmoglobine as such, and as distinguished from other materials, and the consequent introduction of the micro-spectroscope into legal medicine for the determination of blood stains, but considered that certainty has not been attained. The more colors experimented with, the more are found which approach the degree of oxidation of hæmoglobine, and the recent employment of the instrument in courts of law in England Dr. White considered rash.

Paralysis, with Morbid Change in the Arteries.—Dr. Webber exhibited drawings showing two varieties of calcareous degeneration of the smaller arteries. Both were from patients said to have had general paralysis. One represented a small arteriole. The degeneration was external upon or in the outer coat of the arterial wall. The separate spots of calcareous change resembled in many places oil drops; occasionally a large spot of a more crystalline structure was seen. Several very large, crystalline bodies were found in close relation to the arteries. These deposits were shown to be calcareous by the evolution of gas on the addition of muriatic or nitric acid. After the action of the acid, an organic stroma was left, having nearly the shape of the calcareous deposit.

The second drawing represented an arteriole and a small vein from a patient of Dr. Fisher.

The artery was incrusted internally by a comparatively thick calcareous deposit, by which it was transformed into a small chalk tube, its calibre being very much diminished. The smallest arterioles were only partially affected and the deposit could be better studied in them. At first, only small, round spots were noticed lying among the nuclei. These increased in number, and were frequently arranged in rows having a transverse direction. Soon the muscular nuclei disappeared, the longitudinal nuclei of the inner coat being still visible, and it was not until the deposit had become considerable in amount that the longitudinal nuclei were no longer to be seen. It may be supposed, then, that the deposit was made in the muscular coat and finally occupied its entire extent. The large arteries at the base of the brain seemed to be normal.

Prof. Ludwig Meyer, in a paper on fat granules and granular cells in the brain and cord [*Archiv f. Phychiatrie u. Nervenkrankheiten,* iii. 1, 2), states that calcareous change may occur in the fatty granular nuclei of the vessels and thus calcification may take place. This may be the method in which the former variety of calcareous degeneration originated, but the second seems to have had an entirely different origin, independent of the nuclei to which Prof. Meyer refers.

Dr. Fitz mentioned that petrifactive degeneration of the cells of the muscular coats of vessels is described by Virchow. A circular sheath of muscular fibres is seen, and muscular cells come out distinctly on removing the lime.

In reply to Dr. Ellis, Dr. Webber said that one patient was less than 40 years of age, the other about 37. No maniacal symptoms were present. The patients gradually lost their powers and became irritable and noisy.

Physiological Importance of Alcohol for the Animal Organism.—Dr. Bowditch, in continuation of remarks made by him at the February meeting of the Society, and in support of his opinions at that time advanced with regard to the value of alcohol as a nutriment, adduced the recently published views of Prof. Voit, of Munich, as elicited by an article on the nutritive value of alcohol, published by Dr. Sabbotin in the *Zeitschrift für Biologie.* [Boston Med. and Surg. Journal, June 27, 1872.] Prof. Voit defines a nutriment as a substance capable of furnishing to the body any of its necessary constituents or of *preventing the removal* of such constituents from the body. This definition, while very comprehensive, is yet exact, and an exact definition of our ideas in regard to the terms " nutriment and nutrition " is, of course, an essential preliminary to discussion. In wasting diseases, where large amounts of alcohol are borne without narcotism, it would seem as if its results were nourishment rather than stimulation.

Dr. Ellis suggested that under Voit's definition, sleep might be considered a nutriment as interfering with destructive metamorphosis.

Dr. White added that some gases would come under the same definition, and asked for the results of experiments with alcohol in case of diseases.

Dr. Bowditch said that as yet these were few. The secretions from the lungs and skin must be examined as well as that from the kidneys. If an increase of carbonic acid and water is proved corresponding to the amount of alcohol not otherwise accounted for, we may perhaps consider that the alcohol has been thus used.

Dr. Webber said that he had given rum in debilitated cases, and that no odor was apparent in the breath until large doses had been given. His rule was to push the alcohol until such odor was perceived, and he believed life had been saved by so doing.

Dr. Webber spoke of peculiarities of sensation when the æsthesiometer is used. In three cases, the patients had spoken of the sensation produced as resembling that caused by a row of points. In a case of locomotor ataxia, the more the points of the instrument were separated the greater was the apparent increase in the number of points felt in the row.

Dr. Amory then invited the Society to visit his physiological laboratory, and exhibited the following experiment. Ten drops of chloroform in water (after an interval of ten minutes repeated) were subcutaneously injected, the former into the abdominal cavity, the latter into the loose skin above the bend of the knee-joint of the hind leg of a dog. The animal was then made to exhale through a combustion tube packed with asbestos and heated red hot in a Hoffman furnace of 170 burners (100 only used in this experiment), and then into an acidulated solution of nitrate of silver. Six minutes after the second subcutaneous injection, chlorine gas was seen to pass from the outlet of the tube, and a white precipitate of chloride of silver deposit in the silver solution. This proved the fact that chloroform had been eliminated six minutes after its hypodermic injection, its presence being determined from its decomposition by a red heat into hydrochloric acid (precipitating as chloride of silver), and chlorine gas escaping from the outlet.

Suicide attempted by Means of Petroleum *(Mitt. d. Aerztl. Ver. in Wien,* 1872, No. 6).—A woman, 45 years old, drank one-half litre of petroleum, such as is found in the shops, for the purposes of suicide. Symptoms of intoxication were very slight; pain in the stomach and fever were almost entirely absent. The cutaneous surface smelt strongly of the petroleum, but not the breath. Her urine contained albumen, pus and epithelium, and manifested an alkaline reaction. The strong odor of petroleum remained upon the skin for six days, after which the woman recovered entirely. —*Phil. Med. Times.*

Bibliographical Notices.

The Principles and Practice of Surgery. By Frank Hastings Hamilton, M.D., Professor of Surgery in Bellevue Hospital Medical College, &c. New York: William Wood & Co. 1872. Pp. 943.

Dr. Hamilton has again placed the profession under an obligation in the form of a new text-book, designed both for the medical student and as a direct guide to the surgeon. It is true, we have been liberally supplied with simple text-books, perhaps too freely; but each one of those recently given to the public has had its own advantages which have recommended it. We have already expressed the view that a text-book proper is generally of little value, except for the primary instruction of the younger men, simply touching, as it does, on *all* the topics of surgery, but failing to furnish to the working man the minutiæ of each subject which he needs in actual practice. To a certain extent and necessarily the work of Dr. Hamilton is susceptible of this criticism; it is strictly a text-book; but the full discussion which is given to the more important topics of surgery fit it more completely than usual as an aid to the practising surgeon. "Whenever it seemed necessary to a thorough comprehension of the subject, a more minute description of the surgical anatomy and of the most approved operative procedures than is usually found in similar treatises" has been employed. It is, in this respect, not less valuable to the student, and to the practitioner takes the place of the more elaborate monographs which are beyond the reach of many. We wish that our text-books on all the subjects of medical literature might, in like manner, cease to be mere leading strings for the youngest, but helps to thought, and working tools in the hands of the maturer men.

The book is divided into two parts: the first on general and the second on regional surgery. It is subdivided into chapters, much as is done in general treatises on the subject of surgery. The author allots more space than usual to gun-shot wounds, fractures, dislocations and amputations, to aneurisms and hernia, subjects in which he has been more particularly interested and in which his reputation is well known. In the treatment of these topics especially the author has employed precise and clear language, and, without entering into undue discussion of the views expressed by other men, gives sufficiently thorough and practical information. In almost every respect, the book is thoroughly reliable; the care and thoroughness with which the more important points are treated give it a good character, and the smoothness of its composition renders its perusal most agreeable.

X.

On Winter Cough, &c. A Course of Lectures by Horace Dobell, M.D. New and enlarged Edition, with colored Plates. Philadelphia: Lindsay & Blakiston. 1872. Pp. 258.

This work treats of catarrhal bronchitis, emphysema, asthma, and the relation, especially that of the first three, to each other.

In the preliminary discussion as to the production of emphysema, the author rejects the current hypothesis—that it may be due to forcible expansion of the pulmonary vesicles during inspiration, or to a compensatory dilatation of the vesicles rendered necessary by the collapse of neighboring portions of the lung, or to a degeneration of the tissue of the vesicles, which renders them unable to withstand the normal dilating influences of respiration, and regards emphysema as caused by the forcible expansion of the lung during the expiratory act. Any obstruction to the expiratory tide which may arise favors the production of the emphysematous condition, whether it be a sudden strain, as from parturition, lifting heavy weights, fits of convulsive coughing, &c.; or from ordinary acts of coughing, sneezing, nose-blowing, &c., when the naso-pulmonary passages have been narrowed from previous disease.

The writer dwells at length on the evils arising from neglected winter coughs; showing that from year to year the attacks return, giving the patient increasing discomfort, causing congestion and thickening of the naso-pulmonary mucous membranes. This narrowing of the respiratory tubes becomes more persistent with each successive cold, until at length comes a combination of some or all of the evils resulting from such repetitions, viz. dilated right heart, collapsed lung, emphysema, &c.

Three chapters are devoted to the hygienic and medicinal treatment of winter cough. A few lines opposing a popular delusion, and one which we fear physicians are not careful enough to expose, are as follows (p. 184):—" It is quite astonishing what follies are committed with regard to the temperature of sleeping-rooms. On what possible grounds people justify the sudden transition from a hot sitting-room to a wretchedly cold bedroom, which may not have had a fire in it for weeks or months, it is impossible to say; but it is quite certain that the absurd neglect of proper warming in bedrooms is a frightful source of all forms of catarrh. We cannot too much impress this upon our patients.”

A good index concludes the volume. G.

Evolution of Life. By Henry C. Chapman, M.D., Member of the Academy of Natural Sciences, Philadelphia. Philadelphia: J. B. Lippincott & Co. 1873.

It is but fair to the author of a work like the present one to mention his aim before criticizing his performance. Dr. Chapman, as he states in the preface, proposes to give a popular account of “the most important generalizations in reference to the structure of plants and animals, their petrified remains, and mode of development, and to point out how the theory of the Evolution of Life follows from the acts of anatomy, geology and embryology.” This is for the benefit of “the medical and literary world generally, whose acquaintance with the writings of the distinguished savans just mentioned (Lamarck, Darwin and others) is necessarily superficial from the nature of their pursuits.”

The book is a good compilation, but might have been a much better one had the author dwelt more upon the objections to the theory. Having accepted it himself, he appears to see little or nothing to prevent others from doing the same.

There is an unwarrantable boldness of statement, and much is given as probable or certain which would be thought rather doubtful were it not for the very theory which it is to prove. No one with well-founded objections will find anything here to shake them, but those inclined to believe will consider the book strong in a direct ratio to their ignorance of the subject.

Provided he bear this in mind, the general reader will find the book worth his perusal; one side of the question is cleverly, though superficially, put. D.

Receipt against Cholera.—On the occasion of a great epidemic—probably one of cholera—which reigned in the seventeenth century, the following quatrain had much vogue. *La France Médicale,* which has disinterred it, thinks it still applicable.

“Tiens tes pattes en chaud. Tiens vides tes boyaux,
Ne vois pas Marguerite; au cholera tu seras quitte.”

Medical and Surgical Journal.

Boston: Thursday, October 17, 1872.

WANTED—PUBLIC AMBULANCES.

“Why in the name of humanity do not the proper authorities provide one or more ambulances, stationed at a convenient point, to be used in case of accident for conveying sufferers to the hospital or their homes, with such speed and comfort as may be? Should any be inclined to doubt the necessity of such a vehicle, the sight of four policemen recently conveying the mutilated form of an unfortunate laborer upon a wooden stretcher, in a rain storm through the streets to the police-station, pressed by a throng of gaping idlers—to say nothing of his subsequent removal in an ale wagon, with ghastly features still exposed—would convince the most indifferent that there existed shameful room for an improvement, which hardly a day in the year would fail to prove a measure of mercy and decency, and occasionally, perhaps, even an actual saving of life”.

We need not apologize for the reproduction of the above, taken from the *Daily Advertiser* of this city, for the pertinence of the matter is most obvious, and it will meet the approval of all physicians, and especially of all hospital-surgeons who are accustomed to the collapse of newly arrived patients, and who know to how great a degree the shock of injury is increased by exposure and by a jolting journey in open express wagons in care of attendants unused to such service.

The item quoted repeats a suggestion made by ourselves a year ago, in which we felt called upon to urge the establishment of a metropolitan ambulance system. Why may we not have the advantages used in other cities, and be able to offer our sick and maimed fellow-citizens a reasonably safe and comfortable means of transportation? Accidents are constantly occurring, and the victims must be moved to their homes or the hospital; patients usually considered “too ill to be moved,” may, with ease and safety, be placed on a stretcher by skilled hands, and then conveyed in an ambulance from homes of poverty, of filth and darkness, to more favorable situations for recovery. It is often desirable for patients of ample means to be moved from one part of a city to another; such a move could certainly be effected under the most advantageous circumstances by the ambulance corps, and the invalid or his friends would not grudge a fee which might be charged for the conveyance. Thus in many ways would the ambulance become a public blessing.

The Boston Dispensary for Nervous Diseases was opened at No. 241 Harrison Avenue, in May last, and has, therefore, been in operation somewhat over four months. During this time over fifty patients have been treated, most of whom have been apparently worthy poor persons; in a few instances the applicants have belonged to a higher class and have been recommended to employ their own physicians.

The diseases which come under the designation "nervous" are of a sufficiently varied nature; those treated at the dispensary have furnished examples of some of the rarer and many of the more common diseases included in this class. The results of treatment have been varied. Some patients, afflicted with almost absolutely incurable diseases, have been very persistent in their attendance; and others, easily curable or capable of decided partial improvement, have made but one or two visits, leaving the physicians in doubt as to the benefit they may have derived from treatment. In spite of numerous obstacles, however, the dispensary has had a good degree of success, and, under the care of Dr. Lincoln and his assistant, Dr. Williams, has done a good work. These gentlemen have introduced a degree of scientific thoroughness into the examination and treatment of their cases which leaves nothing to be desired, and which will put the patient in a fair way to recover, so far as medical science is capable of accomplishing it.

The dispensary is in possession of a complete electrical apparatus, which, it need hardly be said, is an essential means of treatment in many cases. An opportunity is freely offered to all medical men, interested in this branch of medicine, to see a class of cases which but rarely come under their notice; and to furnish them with gratuitous consultations upon the cases of their own poorest patients.

The Hospitals.

BOSTON CITY HOSPITAL.

Wound of Arm, with Injury to large Vessels. (Service of Dr. Gay.)—Sept. 23. Franklin H., æt. 18, clerk. As this patient was attempting to capture a thief who was robbing the store of his employer, he received a stab in the left arm near the shoulder. The wound bled very profusely, but a policeman arrested the hæmorrhage by tying a handkerchief around the arm above the wound. This occurred about fifteen minutes before entrance to hospital. He walked with assistance, was pale, pulse accelerated, but not feeble. The clothing upon the arm was saturated with blood. Upon examination, there was found an incised wound about three and a half inches long in left arm just below the shoulder, passing in a slightly oblique direction inwards through deltoid and biceps muscles, severing the ulnar nerve and chipping out a piece of the brachial artery; also wounding the basilic and cephalic veins. The bone was exposed, but not denuded of its periosteum. On removing the handkerchief, the brachial artery spouted and there was profuse venous hæmorrhage. The bleeding was arrested by compression in the axilla. Patient was stimulated with brandy, and ether was administered. Dr. Cheever tied the brachial artery in the wound above and below, and also the large veins, completely arresting the hæmorrhage. The arm was covered from fingers to shoulder with cotton-wool, and a bandage and heater applied. As pulse was quite weak, one ounce of brandy was administered by enema.

24th.—Had much pain last night, which was relieved by morphia. Temperature, A.M., in axilla of sound side 105°, in palm of hand of same side 105°, in palm of injured side 103°. Tongue lightly coated, red at tip. Seven, P.M., temperature 101½°.

25th.—Temp. 100·5°; pulse 120. Injured arm warm. Pus in small quantity oozing from wound. Patient says that sensation is equally good in either hand. Has complained, at times, of numbness in fingers of injured side.

26th.—On pressing the finger nails, blood returns immediately on sound side, slowly on injured side. Appetite fair; diet, eggs, milk, beef-tea and chicken. Seems to be gaining daily. Urine has had to be drawn twice by catheter. To-day, passes it freely.

28th.—Pulse can be felt feebly in radial artery of affected side.

29th.—This A.M. there was a slight oozing of blood from the wound, and at 8, P.M., a profuse hæmorrhage took place, the ligature having separated from the brachial artery. A tourniquet was immediately applied, and a surgeon summoned.

Operation by Dr. Gay. Ether was administered, and the pulse, which had been 140 before ether, became slower and weaker. The arm was then amputated near the shoulder, by making an upper and lower flap and sawing through the surgical neck of the humerus. The collateral circulation had become well established and quite a number of ligatures were required. During the operation, the patient became nearly pulseless, but revived after stimulants had been given by enema. After recovering from the ether, he vomited and afterward seemed to doze a while. He was in a very weak state, and enemata of beef-tea and brandy were given but were not retained. Carbonate of ammonia and brandy were given by the mouth, but to no purpose, as he gradually failed and died at 2 o'clock on the morning of the 30th.

Multiple Injuries.—Sept. 5th. J. E., æt. 42, sailor. The patient fell about twenty feet, into the hold of a vessel, dislocating his right clavicle at both ends, fracturing two ribs on the right side, and receiving severe bruises upon the forehead. On entrance, he was suffering extreme pain, was very fretful and restless, and morph. sulph., gr. $\frac{1}{3}$, was injected subcutaneously. There was extensive emphysematous swelling about the right breast, extending over right side of the neck, which crackled under the finger. A pad was placed in the axilla, the elbow brought to the side and a bandage applied, which supported the ribs, and kept the elbow to the side and the clavicle in place.

Sept. 6th.—More comfortable. Patient has pain on drawing a long breath. Urine has to be drawn by catheter.

Sept. 7th., A.M.—Temp. 99½°. Coughs and raises easily thick yellow sputa, slightly tinged with blood. Tongue thickly coated with a white fur. Bandage removed, and a broad swathe applied around the chest, with shoulder-straps attached. Diet to be light and nourishing.

14th.—Much improved, and wishes to get up. There is much difficulty in keeping the sternal end of the clavicle in place, on account of the patient's restlessness.

24th.—Allowed to get up and walk about ward.

Oct. 1st.—Both ends of clavicle firm, sternal end very prominent. Some pain still in side on drawing long breath. Still wears swathe about chest.

Fracture of Scapula and Ribs, with Scalp Wound.—Sept. 25th. H. O., æt. 48, hackman. The patient was brought in from the police-station, having received injuries recently while intoxicated. Pulse was very feeble, skin cold and moist. Brandy was given. Examination revealed a large, irregular scalp wound near the left parietal protuberance, also a fracture of the right scapula transversely near the spine of scapula. Three or four ribs were broken on right side near their angles.

Broad, adhesive straps were placed around the chest and over the scapula. Arm bandaged to the side. The edges of wound in scalp were brought together by adhesive straps and two or three sutures.

Sept. 26th.—Patient gets out of bed and tears off part of bandage, and shows evidence of delirium tremens. Surface of body bathed in cold sweat. Manacles applied.

℞. Quiniæ sulph. gr. vi., every three hours.

Sept. 28th.—Pulse 120. Tongue dry, with brown coating. Takes beef tea. Tinct. capsici ♏xv. added to quiniæ sulph. gr. vi., every three hours.

Sept. 29th.—Right side of head and face much swollen, especially in parotid region. Wound of scalp dressed with chlorinated soda wash.

℞. Brandy ℥j., every two hours.

Sept. 30th.—Still wandering and delirious.

℞. Chloral hydrat. gr. xv. every three hours.

℞. Brandy ℥ss., every three hours.

Oct. 1st.—Swelling of head and face increasing. Neck also swelling. Difficulty in breathing. Pulse 120.

Oct. 2d.—Head, face and neck enormously swollen. Gradually failing. Died this evening.

Fracture of Skull, with Depression.—Aug. 8th., 1872. E. L., æt. 19, machinist. During a fight, this patient was struck upon the head with a large piece of iron, and knocked down insensible. On entrance, a very slight wound of the scalp was found over right parietal eminence. There was a feeling given to the finger as though a depression of the skull existed; but as this was somewhat doubtful, and the only symptom of compression being a slow pulse, it was deemed prudent to await the development of more reliable symptoms. Pupils were natural. No paralysis or stertorous respiration. Pulse 50 and full. Complains of pain in head. Patient was put in bed, with cold application to head.

Aug. 9th.—Symptoms same as yesterday. Takes very little nourishment. Passes urine naturally.

10th.—Pulse 50. Condition about the same. Poultice applied to head. Seven, P.M., great pain in head. Ice-bag applied to head. Mustard sinapisms to calves of legs, and morphiæ sulph. gr. $\frac{1}{6}$ subcutaneously.

11th.—This morning pain quite severe. Considerable swelling of scalp, which feels elastic at site of injury.

Patient was etherized. Dr. Gay made a crucial incision through the scalp and found a depressed fracture of the skull to exist. The depression would probably admit half of an English walnut. It was necessary to trephine in order to remove the fragments, six in number. The opening left after operation was about an inch and a half square, extending towards the mastoid portion of temporal bone. The dura mater was found to be slightly torn. Two small vessels required ligature. Patient recovered from ether well, and complained of pain in head. Morphia was given subcutaneously, and cold water applied to head.

14th.—Pulse 80. Temperature 100°. Hernia cerebri exists, filling the opening in skull with a pulsating mass. Severe pain in head, relieved by subcutaneous injections of morphia.

17th.—Temperature 104°. Hernia cerebri increasing. Pulse 70 to 76, irregular.

18th.—Morning, temperature 105°; evening, temperature 106½°. Wound smelling rather foul. Poultice of linseed meal and charcoal applied.

19th.—Morning, Temperature 105.5°; evening, 104.5°. Hernia cerebri about the size of a hen's egg. Takes very little nourishment.

20th.—Morning, temperature 102°. Cannot recognize any one. Says his sight is impaired. There is some twitching of fingers. Two, P.M., pulse has gone up to 108, and is full and hard. When spoken to, does not answer, although a motion of the lips shows that he makes an attempt. An hour ago, could speak, and ate two peaches. The membranes over the hernia are sloughing, and there is some oozing of dark blood. Ice to head and mustard to calves of legs. Seven, P.M., condition about the same. Temperature 102.

21st.—Temperature 104.5°. Is sinking. Died at noon.

Dislocation of Spine.—Aug. 31st. P. C., æt. 30, laborer. Five days ago, the patient fell a distance of thirteen or fourteen feet, striking upon the back of his neck. Was seen at the time by a surgeon who has attended him since the injury. On entrance, it is found that he is paralyzed in motion and sensation. Sensation extends to nipples. Respiration entirely abdominal. Examination of neck shows a swelling at the junction of 5th and 6th cervical vertebræ, but no displacement can be made out. Pupils are normal. It has been necessary to draw off the urine by catheter since the injury. Urine is high colored and ammoniacal. Pulse 76. Tongue covered with brown coating.

Sept. 2d.—Has had one or two involuntary discharges from bowels. Urine darker in color and some muco-pus escapes through catheter. Slight distention of abdomen. Face somewhat flushed. Can move right arm, apparently by muscles of the shoulder. Complains of thirst.

Sept. 5th.—Urine bloody and ammoniacal; reaction alkaline; sp. gr. 1015. Albumen present in large quantity. Microscope shows abundance of blood corpuscles.—Evening, pulse very rapid; patient very thirsty; complains that he cannot feel substances when swallowing. About 11.30 P.M. could not see, nor feel the hand of nurse upon his forehead, but was conscious, spoke and made known his wants. Died at midnight.

At the autopsy there was found a dislocation of the 5th and 6th cervical vertebræ compressing the cord. The cord was softened for some distance on either side of the compressed portion. Other organs were in good condition.

INOCULATION OF SMALLPOX BY SKIN-GRAFTING.—In a recent discussion on skin-grafting in the Berlin Medical Society, Herren Hahn and Zülzer referred to an instance recorded in the *Deutsche Militair-arztlich. Zeitschrift*, in which portions of skin for grafting were taken from the amputated limb of a woman in whom, the day after the operation, the eruption of smallpox appeared and proved fatal. One of the four patients on whom the skin was grafted had smallpox in a mild form. He was, however, a man of intemperate habits, and died, according to Herr Zülzer, of pneumonia.—*Brit. Med. Jour.*

OZONE AS A DISINFECTANT.—A company has been organized to furnish ozone apparatus for disinfection in Chicago.

Medical Miscellany.

MASSACHUSETTS GENERAL HOSPITAL. — Dr. F. I. Knight has been appointed Laryngoscopist to the Hospital.

DR. W. R. GIBBES, of Columbia, has been elected Professor of Anatomy and Surgery in the University of South Carolina, in place of Dr. Darby, resigned.

AGASSIZ.—Prof. Agassiz has been elected one of the eight Foreign Associate Members of the French Academy of Sciences, to fill the vacancy caused by the death of Sir Roderick Murchison.

THE Medical Library of the late Professor Robley Dunglison, of Philadelphia, embracing a great variety of works in every department of Medical Literature, is in the hands of auctioneers and will be sold at an early day.

THE Lectures of the Sixth Session of the School of Pharmacy commenced on Monday, the 14th instant. Lectures will be delivered at the College rooms, No. 8 Boylston street, in Pharmacy by Prof. Markoe, on Monday, at 3 and 7½ o'clock; Prof. Babcock on Wednesday, and Prof. Tracy on Friday, at the same hours.

WE are glad to note that the college this year has made an important change in its system of instruction by adopting a graded course, and making stated examinations obligatory on all its students.

A WORD TO ENGLISH ETHERISTS FROM DR. SQUIBB.—" It may be safely said that those who resort to it (ether) after a long use of chloroform, and acquire the little skill necessary to use it well, will have a sense of safety and satisfaction which they never knew before."

PROF. BENTLEY, of the Medical College of the Pacific, has supplied his dissecting room with glass tables. Each table consists of a single slab of glass, three-fourths of an inch in thickness, two feet four inches in width, by seven feet in length. They possess all the properties of neatness, durability and even of elegance.

HOSPITAL APPOINTMENT.—Dr. Wm. H. Baker, of this city and lately one of the House Physicians of the City Hospital, has been appointed Assistant House Surgeon in the N. Y. State Woman's Hospital, New York city.

AMERICAN MEDICAL ASSOCIATION.—The triennial list of permanent members will be published this year. Permanent members who have not paid their assessments will please notice, " any permanent member who shall fail to pay his dues for *three successive years*, unless absent from the country, shall be dropped from the roll of Permanent members."

(Signed) WM. B. ATKINSON,
Permanent Secretary.

DR. C. B. BRIGHAM, of this city, was, on the 8th of August last, decorated by the Emperor of Germany with the Imperial Order of the Crown for his valuable and meritorious services rendered alike to wounded German and French soldiers in the hospital at Nancy in the recent war.

WORCESTER CITY HOSPITAL.—By the fortunate termination of a will case, the city of Worcester becomes possessed of about $100,000, to be held in trust for the establishment of a free Hospital. The property was left to the city by Deacon I. Washburn, as a memorial of his two deceased daughters. The city also holds in trust a large bequest from the late George Jaques, for the same purpose; it is proposed to unite the two bequests, for the more satisfactory accomplishment of the object.

BOOKS RECEIVED.—A Manual of Diseases of the Eye By C. MacNamara, Professor of Ophthalmic Medicine and Surgery in the Calcutta Medical College, &c. Philadelphia: Lindsay & Blakiston. Pp. 620. (From A. Williams & Co.)—A Handbook of Chemical Technology. By Rudolph Wagner, Ph.D., Professor of Chemical Technology in the University of Wurzburg, &c. Translated by W. Crookes, F.R.S. New York: D. Appleton & Co. 1872. Pp. 745. (From A. Williams & Co.)

PAMPHLETS RECEIVED.—Aiken and its Climate. By Amory Coffin, M.D., and W. H. Gedding, M.D. Charleston. 1872. Pp. 53.—Transactions of the Georgia Medical Association at its Twenty-third Annual Meeting. Atlanta, Ga. 1872. Pp. 134.

MARRIED,—In this city, 8th inst., Prince W. Page, M.D., to Miss Lucy W. Gould, both of Boston.

Deaths in fourteen Cities and Towns of Massachusetts, for the week ending Sept. 28, 1872.

Cities and Towns.	*No. of Deaths.*
Boston	141
Charlestown	13
Worcester	25
Lowell	14
Cambridge	22
Salem	7
Lawrence	15
Springfield	8
Lynn	13
Gloucester	12
Fitchburg	3
Taunton	12
Newburyport	3
Somerville	6
	294

Prevalent Diseases.

Consumption	47
Cholera Infantum	30
Typhoid Fever	21

There were seventeen deaths from smallpox in Boston and one in Cambridge.

GEORGE DERBY, M.D.,
Secretary of State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, October 5th, 153. Males, 86; females, 67. Accident, 3—asthma, 2—apoplexy, 3—cyanosis,—cerebro-spinal meningitis, 1—inflammation of the bowels, 1—disease of the bladder, 1—bronchitis, 4—congestion of the brain, 1—burned, 1—cancer, 2—cholera infantum, 9—consumption, 24—convulsions, 2—croup, 1—debility, 1—diarrhœa, 3—dropsy, 1—dropsy of brain, 2—drowned, 3—dysentery, 1—erysipelas, 2—scarlet fever, 2—typhoid fever, 10—disease of the heart, 5—homicide, 1—infantile, 3—intemperance, 2—disease of the kidneys, 2—disease of the liver, 3—congestion of the lungs, 4—inflammation of the lungs, 4—marasmus, 9—old age, 4—paralysis, 1—premature birth, 5—parotitis, 1—puerperal disease, 2—smallpox, 22—whoop. cough, 1—unknown, 3

Under 5 years of age, 58—between 5 and 20 years, 11—between 20 and 40 years, 45—between 40 and 60 years, 15—above 60 years, 24. Born in the United States, 95—Ireland, 38—other places, 20.

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Original Communications.

DEATH BY CHLOROFORM, AND ALLEGED DEATH BY ETHER.

By Henry J. Bigelow, M.D., Boston.

In the great rarity of so-called "death from ether," the case reported in the *Medical Record* of Oct. 1st, will probably be quoted, and perhaps also confounded with the usual "death from chloroform," which is quite different. For this reason, we believe that the reporter of this case will pardon the following remarks, based in part upon the omissions of his narration.

Nobody doubts that a patient can be gradually narcotized with ether until life is extinguished; and that this result will follow with a rapidity proportioned to his want of health and strength.

Hence, in administering an anæsthetic to a patient reduced, for example, by delirium tremens, by long disease of the bladder, of a joint, or by fracture of the hip, care should be exercised. Here a sudden syncope, or even a more gradual falling off, whether of pulse or respiration, may mean something. In the course of ten or fifteen minutes, the vital force, after having given fair warning, may yield with unexpected and startling suddenness.

Exhausting and protracted influences like these are far more potent in their depressing effects upon the system, especially in diminishing its power of supporting anæsthesia, than a recent injury to a more robust subject. Such a patient may be cold, pulseless, and nearly insensible, as a result of one or more limbs crushed by railroad accident some hours before, but is usually stimulated by ether inhalation. As a rule, his pulse comes up, and he undergoes his amputations well.

If the narcotism* of ether is ever fatal to an aged or exhausted subject, in the way described, it should be remembered that chloroform would be more fatal to the same patient under the same circumstances.

Death from narcotism, although it may be heralded as "death from ether," is not death from any property peculiar to ether. It is death from a depressing influence, common to ether, chloroform, alcohol and opium, and is most likely to occur with the strongest of these agents. Moreover, *precaution will prevent it.*

But "*death from chloroform*," which has given to chloroform its doubtful reputation, is a different thing, which *no human foresight can avert.* It is death from a small and usual dose of this powerful agent; death to a healthy person, sometimes as sudden as by a stroke of lightning, without warning of any sort—*by shock*. We hold that *ether has never produced such a result*, but always gives fair and adequate notice of the approach of danger.

If these views are correct, it follows that a certain small proportion of "deaths from chloroform," so called, should be subtracted from its bill of mortality, and credited to a "narcotism" common to ether and chloroform. But a similar analysis will wholly expunge the two or three fatal cases, for which ether has been by some persons held to answer. Chloroform will still be responsible for its monthly record of death by "*shock*," small in its percentage it may be, but inevitable, while ether will then have a clean bill of health.

Let us now, with a desire to give to ether a candid hearing, and also because it, in some measure, illustrates so-called "death from ether," consider the fatal case which occurred in the hands of the house-surgeon and his assistant at the Bellevue Hospital.

A man of 68, with a fracture just below the trochanter, of eighteen days standing, having the lower lobe of his right lung œdematous, and its "lower portion in a state of red hepatization," there being, also, "emphysema," and "thickening of the large bronchi," had ether "slowly and carefully" administered, during "perhaps ten minutes," for the application of a plaster bandage. The patient was then "fully under its influence."

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* The term "narcotism" expresses well enough for present purposes, the gradual effect upon the system of anæsthesia in general, while "shock" may stand for the sudden or toxic effect of chloroform.

"A few turns of the plaster had been made, when the patient's breathing was observed to be rather frequent and gasping. The pulse, was, however, full and regular. The thorax was compressed two or three times, and the patient's breathing again became normal. As these symptoms not rarely occur during etherization, they excited no special alarm. The ether was, however, withheld from the patient four or five minutes, his respiration and pulse being normal. As he then began, however, to move about and his muscles were becoming rigid, the ether cone was again applied."

This is not quite clear. The patient was "fully" etherized. Everything, the pulse included, is said to have been as it should be, except the breathing, which became "rather frequent and gasping." Now a patient in his senses, with his chest filled with water, for example, may breathe in this way. But is a patient likely to breathe of a sudden more rapidly when he is fully narcotized? We do not agree that these symptoms "not rarely occur during etherization." With the experience of many thousand cases, we have never seen them. A patient with ether may be faint,* as, perhaps, this one was, or, when fully under its influence, may breathe more slowly, or suspend his respiration, or snore; or when he does not get air enough, may have spasm of the glottis from asphyxia, producing more asphyxia, discoloration, and general muscular rigidity, but, so far as we know, never an accelerated respiration with gasping, when fully etherized, the pulse being full and regular.

Nevertheless, these, or other appearances not mentioned, led to an attempt at artificial respiration, and to the suspension of the ether inhalation during four or five minutes.

The rest of the story is given in a few words.

"In a minute or two, my assistant, who was giving the ether, observed the pupils to be dilating rapidly, and the breathing to cease. His heart was still beating, however."

We naturally ask, how, during this critical and not very brief interval, was the pulse—a most reliable pilot among the possible dangers of etherization. There is no mention of it.

Such signs as those mentioned above are hardly compatible with the continuance of a full and regular pulse, and we cannot but feel that the pulse at the wrist, if kept in hand, would have given warning of their approach.

For ourselves, if called upon to indicate, in the absence of complete evidence, the probable cause of this death, we should perhaps reärrange the statement somewhat, as follows:

A man of nearly 70 years, reduced by a fracture near the trochanter, of eighteen days' standing, and by pneumonia, was subjected to a somewhat protracted inhalation before coming under the influence of ether. At the end of ten or twelve minutes, his breathing became so feeble and irregular that etherization was suspended and artificial respiration was resorted to. In the course of four or five minutes more, there being some muscular action, the respiration being also stronger, and the pulse better, the ether was again administered, but the same bad symptoms soon supervened. On examination, the pupils were now found to be dilated. The heart was still beating (although there was probably no pulse at the wrist), but attempts at resuscitation were this time ineffectual.

Such an account would better accord with previous experience. The vitality of a patient enfeebled by age and disease, proves to be easily depressed, and after giving to the operator good and sufficient warning of his enfeebled condition, he succumbs; an occurrence which may serve as a fresh and salutary lesson to the surgeon to exercise care during anæsthesia by ether, and still more by chloroform, of a system thus depressed; but an accident we believe to be impossible to ether, with the pulse held and the respiration attended to.

On the other hand, we repeat, no precaution yet devised by human ingenuity will prevent the insidious shock of chloroform, in even a small dose, from occasionally and abruptly killing a healthy subject. This is the peculiar and usual *death from chloroform*, and of its approach, neither pulse nor breathing gives indication.

Ether is so safe when used liberally, and even prodigally, that after a time, the practitioner may perhaps fail to be quite alive to the possible dangers which are inseparable from every remedy of any power. With a tithe of the extreme but vain precaution of English practitioners against the shock of chloroform, we hold that ether would be innocuous. In the above case, an exceptional degree of caution, suggested by the symptoms, might perhaps have saved the patient; but it is important to say that we find nothing in the account to show that the house-surgeon failed to exercise as much care, on the whole, as is common in the administration of ether, and such as usually insures to the patient immunity from accident.

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* Symptoms of pulse and respiration, practically those of syncope, are not unfamiliar to persons in the habit of etherizing. The operating chair at the Massachusetts General Hospital, in use since 1854, was furnished with a hinged back and foot-board, to provide against this contingency. The patient can be at once laid flat.

CASE OF POISONING BY LAUDANUM SUCCESSFULLY TREATED BY BELLADONNA.

By Thomas Thatcher Graves, M.D., Lynn.

On the 12th of August, 1872, I was summoned to attend a man at the Police Station in Lynn, Mass., and, arriving at the station at 8.15, A.M., I found a man who styles himself "Dr. I——, horse doctor," with the following history and appearances. Between 6 and 6.30, A.M., of that morning he drank two full ounces of tincture of opium, officinal strength, sold by the druggist, as "Dr." —— stated, to be given to a horse. The patient had been brought to the station and placed in a close, rather dark cell, upon a bed. I had him brought out to the light, and found the pupils so much contracted as hardly to be perceptible; patient totally blind, not able to speak; radial pulse not perceptible; patient not insensible to sound; appeared to want to answer questions, but lacked the power to do so. Breathing very slow (number of respirations not noted). The eyelids remained closed. Hands and feet cold and clammy. There was considerable muscular tremor, and at that time it did not seem possible for him to live fifteen minutes. The proof was positive that he had drank all the laudanum, *and that he had not vomited*. Nearly or quite two hours had elapsed since the dose was taken before I saw him.

Feeling certain that but a very small quantity of the laudanum could still be in the stomach, and thinking he would surely die in the attempt to vomit should I give an emetic, I decided to administer tincture of belladonna. Carefully closing the epiglottis with the finger, I poured one drachm of Squibb's tincture of belladonna into the patient's mouth. In a very few moments he seemed so much revived that he swallowed another teaspoonful of the same. I then sent a messenger to my office for more, but he returned with Thayer's fluid extract of belladonna (dose five to eight drops). Soon after taking the first dose he became bathed in the most profuse perspiration; the eyes began to dilate; he could speak, and expressed surprise at finding himself at the station; remembered taking the laudanum, &c. In about fifteen or twenty minutes from the first dose I gave twenty-five drops of the fluid extract, and administered afterwards a drop every five minutes for about an hour. At the expiration of an hour the symptoms of narcosis had so far vanished that no one could have diagnosticated the case as one of opium poisoning. Two hours later, he took a cold bath; during the afternoon he was sleepy, but was easily aroused every half hour. Next day, after a dose of bromide to "settle his nerves," he walked out, reporting himself well.

The patient affirmed that he had never tasted of laudanum before, but had been dissipated for years, and had often been under the influence of liquor during the past month. He *did not vomit* during the whole treatment, nor did he pass water nor have a movement of the bowels until the next day—proving that the laudanuum must have been counteracted by the belladonna.

Many of the toxicological symptoms of belladonna were manifested. After the first dose, it seemed to be less than ten minutes when the eyes were sufficiently dilated to enable him to distinguish objects. At the same time he could speak, the pulse became perceptible, and the muscular tremor ceased. The sweat seemed to literally pour from him. After an hour or two the throat became quite dry, water and strong coffee (the coffee administered over an hour after the belladonna) not relieving the thirst. The coffee was given to allay the thirst, not because the patient was still in danger; for he was well enough at that time to hold the cup and chat with the bystanders.

After the bath, he had "mild, fanciful delirium," lasting most of the afternoon, while awake. About 1, P.M., he became sleepy, and was allowed to sleep all the afternoon, being easily awakened every half hour, and once or twice being obliged to walk about for a few minutes. I visited him at 8, in the evening, when, with the exception of "nervousness," he declared himself well, and hungry.

Lynn, August, 1872.

A CASE OF DOUBLE VAGINA AND UTERUS

By D. M. Edgerly, M.D.

The patient in whom this anomaly occurred was a poor Irish woman, 35 years of age, pregnant with her first child. Labor commenced Monday morning about 5 o'clock. Hoping to get through without calling a physician, she did not send for me till Wednesday noon—nearly sixty hours after labor supervened.

When I arrived, I found the patient very much exhausted; the pains were irregular, weak and inefficient. Upon making a digital examination, I found the head low down, and the pelvis capacious; the finger could easily be carried around the portion of the child's head occupying the right half of the maternal pelvis. But when I attempted to carry my finger over the part occupying the left half, it came in contact with what seemed to be a membrane drawn tightly over the presenting portion of the head in the median line extending antero-posteriorly. My first impression was that a lip of the os uteri was caught on the child's head and was obstructing its progress. But all attempts to get at that side of the head, either by carrying my finger under the membrane or passing it outside, failed. I found a membrane, continuous with that confining the child's head, extending to the outlet of the vagina. After making this discovery, I withdrew my finger, and found I could easily introduce it on the other side of the membrane, and feel the outline of the as yet inaccessible part of the head, but with a thick membrane intervening between it and my finger. Crowding the finger deeply down beside the head, it came in contact with what seemed to be a small cervix and os uteri. The condition of things was now evident. Withdrawing my finger and again introducing it on the right side, I partly succeeded, by using considerable force, in slipping the septum off the fœtal head. I then gave ergot in large doses, which failed to invigorate materially the uterine contractions. After waiting a little I applied the forceps, and, with some difficulty, delivered the woman of a stillborn child. Appearances indicated that it had been some time dead.

The woman made a rapid and complete recovery.

When the lochial discharge had ceased, I made another examination, entirely confirming my opinion of the state of affairs at the time of confinement. On the right side I found a vagina of ordinary size and a uterus rather larger than normal, involution not being yet completed. On the left side was a small vagina, not large enough to admit a medium-sized glass speculum—the smallest I had with me—also the cervix of a rudimentary uterus; the body of the second uterus could be felt resting on the cervix of the one which had been impregnated.

West Newton, October, 1872.

Progress in Medicine.

REPORT ON PATHOLOGY AND PATHOLOGICAL ANATOMY.

By R. H. Fitz, M.D. Harv.

(Concluded from page 268.)

Special Pathological Anatomy. — Nervous System.

Infantile Paralysis.—In a communication to the Section for Children's Diseases at the 44th meeting of German Naturalists and Physicians, Prof. Rinecker (*Jahrb. f. Kinderheilkde*, 1871, 5th year, 1 heft) gave the results of two autopsies, the only ones he had been able to obtain. In the one (by Förster), the peripheral nerve fibres were found altered; in the other (by V. Recklinghausen), there was atrophy of the muscles, with narrowness of the fibres, in spite of the presence of fat here and there. In the anterior columns and in the anterior portions of the lateral columns of the spinal cord, the nerve fibres and ganglion cells were atrophied, the vascular sheaths contained granular corpuscles. The diseased peripheral nerves were thin.

Pseudo-hypertrophic Paralysis. — Auerbach (*Virch. Archiv*, vol. liii., p. 224), Charcot (*Arch. de Phys.* 1872, vol. ii. p. 228), Knoll (*Med. Jahrb.* 1872, p. 1), and Berger (*Deutsch. de Arch. f. Klin. Med.* 1872, p. 363), have written at greater or less length with regard to this subject, all basing their remarks upon cases under their personal observation either directly or indirectly. Berger's three cases and Auerbach's one were adults, and the affection limited to one extremity. Auerbach found simple hypertrophy of the muscular fibres and increased development of the nuclei, without participation of the interstitial cellular or fat tissue. He considers that the appearances presented are those of the early stage of the disease.

Berger found pronounced muscular hypertrophy without nuclear development, and regarded the condition of the muscles as that of the first stage of the disease.

Knoll found the muscular fibres to vary in size; they neither contained nor were they surrounded by fat; there was no evidence of proliferation of the nuclei. The increase in volume appeared to be due to the development of a firm connective tissue in the muscle. This alteration was considered as the early stage, while the development of fat tissue observed by others, would correspond with a later stage.

Charcot seems to have had better opportunities for observation than either of the others. Portions of the different muscles and the spinal cord from Bergeron's case (*Arch. Gru.*, 1868, p. 19) were given him for examination.

The psoas presented appearances which he considered as the primary alteration. Between the primitive muscular bundles were broad spaces of connective tissue containing nuclei, and numerous spindle cells. In the pectoral and sacro-lumbar muscles, where the affection seemed more advanced, the nuclei and cells were less frequent, the spaces between the nuclei were filled out with a wavy connective tissue. A further stage was represented by the occurrence of fat cells in spots, at first single, then more numerous, till the development of fat became general.

Where the first stage was present there was often a considerable atrophy of many muscular bundles, the longitudinal striæ indistinct; occasionally fibres were seen whose transverse striæ were wanting, and others were hyaline filled with granules. The examination of the spinal cord gave a negative result, also of the sciatic, median and radial nerves.

Hæmorrhagic Apoplexy in Childhood.—Fronmüller (*Memorabilien*, 1872, 12. *Prager Viertjahrschrift*, 1872, vol. ii.) gives the case of a female, æt. 14, hitherto healthy, who was suddenly seized with the most violent epileptiform cramps, loss of consciousness, fixed eyes, convulsions, lockjaw, followed within a few hours by death.

The skull being opened, a large amount of blood was found beneath the dura mater over the right convexity, also in the subarachnoideal spaces beneath. A hæmorrhagic mass of the size of a walnut was found in the right cerebral hemisphere, near the surface, the cortical substance and pia mater being ruptured. The cerebral sinuses were filled with blood.

ORGANS OF CIRCULATION.

Thrombosis and Embolism.— Cohnheim (*Untersuchungen über die embolischen Processe. Berlin, Hirschwald,* 1872), Zahn (*Centrbl.*, 1872, p. 129), Durante (*Med. Jahrbücher.*, 1872, p. 143), Dudukaloff (*Med. Jahrbücher*, 1872, p. 150). A satisfactory theoretical explanation of the production of hæmorrhagic infarction has always been a matter of difficulty, and the medical world will receive with great interest the direct evidence furnished by Cohnheim, as to the various stages of this process. From an exceedingly complete abstract (*Centrbl.*, 1872, nos. 19 & 20), the following report is made:—In order that the various stages of the disturbances produced by emboli might be observed, the frog's tongue was used under the microscope. An emulsion of wax globules colored black with soot, was injected; the embolus having stopped, coagulation did not take place about the same. In the arterial branch plugged, the column of blood in front of, and behind the embolus became quiet. If the plugging was sudden and total, that portion of the column beyond the embolus was composed of red blood-corpuscles closely pressed together, with the corresponding number of white corpuscles. Where the plugging was gradual and incomplete, the peripheral column was made up of pure plasma, at the most with a mixture of white blood-corpuscles, which, on account of their nearer relation to the wall of the vessel and their own viscidity, more easily became fixed. At times, for a while at least, the lateral branches just beyond the obstruction were filled with a similar fluid. The condition of the peripheral vascular district depended entirely, as Virchow has insisted, upon the fact whether the obstructed artery anastomosed with another before it broke up into the capillary plexus. In this case the embolus becomes unimportant, as the neighboring arteries to which increased blood is supplied, send the same circuitously into the peripheral portion of the plugged vessel. If there were no such anastomosis, and the artery became a "terminal" one (*endarterie*), there ensued a complete loss of motion behind the embolus, in the entire corresponding capillary region, also in those veins returning therefrom to the point where the latter united with other veins regularly supplied with blood.

From this point of union a backward motion of the blood towards the embolus occurred, advancing continually, filling to the utmost the entire quiet vascular district, then giving way to a rhythmical oscillating movement. This process, *engorgement*, after a short time became evident to the naked eye, from the dark-red distended appearance of the generally wedge-shaped portion of the tongue, and is explained, inasmuch as fluid flowed back from the vein where a certain though slight pressure existed, into the region behind the embolus, where the pressure was null, until the venous pressure counterbalanced that of the opposed body.

A similar result was obtained by the ligature of the main lingual artery, after cutting off its anastomosis at the tip of the tongue, by means of a second ligature. The venous valves did not close so completely as to prevent this process. Hæmorrhage soon followed the engorgement; first at the side of the capillaries, then of the smaller veins; numerous red blood-corpuscles were seen, which gradually ran together into a large red mass; such an action is never to be seen in the large veins or arteries.

To the naked eye this stage is manifested by a reddish-black appearance of the wedge-shaped portion, *hœmorrhagic infarction.* Where the embolus is purely capillary, hæmorrhages occur, though not regularly, and then often immediately around the embolus.

Mere pressure alone cannot be the sole cause of the hæmorrhage, as such takes place where simple plugging of the capillaries occurs, and there is no transudation of blood plasma. Cohnheim therefore tried to prove that by the confinement of fresh circulating blood, an important influence upon the wall of the vessel containing it could be produced. A ligature was applied about the base of the tongue so that the circulating blood was cut off. Removal of the ligature within 24–48 hours permits the blood to stream with force into the widely dilated vessels; the circulation becomes restored to the normal condition as the vessels gradually contract. Removal of the ligature after 48 hours is followed by permanent dilatation of the vessels, with a corresponding retardation of the blood current. At the same time a copious migration of white blood-corpuscles takes place from all the medium sized and small veins; if the ligature has remained longer the red corpuscles also migrate.

If the ligature remains still longer, 4–5 days, the organ dies. Similar experiments with the lungs and loops of intestine gave essentially the same result; the exit of the white and red corpuscles took place more rapidly.

Similar experiments, made upon the rabbit and guinea-pig (ear, testis, intestine and kidney), were followed by like results which took place more rapidly. If the vessels were isolated, and not included in the ligature, the same effect did not follow. If the vein was not included, the process resulted as before described.

Changes in the blood did not produce these results, as they occurred when but little blood was present, even when, during the experiment, the vessels contained a $\frac{3}{4}$ per cent. solution of common salt. Hence Cohnheim thinks the cause of the hæmorrhage is in the vessel itself, though he was unable to detect any alteration of the walls.

Three possibilities exist as to the subsequent history of the plugged region. The embolus may remain, become organized and united to the wall, without recognizable effect upon the surrounding tissues; this takes place when a collateral branch communicates with the obstructed vessel on the peripheral side of the embolus, a relation existing in most organs, especially in the lungs. A necro-biotic process may take place beyond the embolus; and thirdly a hæmorrhagic infiltration may result, either in the form of nodules or patches.

The 2nd and 3d possibilities occur in those organs which possess real terminal arteries, spleen, kidneys, brain, retina, and, in a certain degree, the lungs. In the latter the accommodation occurs completely only when the plugging is near the hilus. In the five organs mentioned the want of renewal of the circulation gives rise to necrosis; the engorgement, the wedge-shaped infarction is the result of the absence of venous valves. Among the causes preventing secondary results on the part of the veins, are the rapid coagulation of blood in the veins of mammals, gravitation, depending upon the seat, the feebleness of the heart's action; vice versa, a more vigorous action of the heart may increase the hæmorrhagic character of the infarction, as seen in the spleen and kidneys in connection with hypertrophy of the left ventricle combined with valvular disease. Necrosis alone results where the artery is incompletely plugged, or where anastomoses on the peripheral side of the obstruction occur, since in such cases the arterial circulation is not completely cut off, and thereby the essential element of venous regurgitation is wanting. The varying reactive power of the different organs, especially of their vessels, gives rise to varying intervals in the occurrence of the four stages of vascular dilatation, emigration, extravasation and stasis.

The infarction becomes evident only after the occurrence of venous regurgitation, a fact not to be explained were arterial flexion the cause. A more important ratification is obtained from the fact that the apex of the infarction is not formed by the arterial embolus, but at a part of the corresponding vein in direct opposition. The infarction really belongs to the venous district, and merely owes its origin to the arterial obstruction.

The embolic abscess results when the plugging is not mechanical solely, but is produced by an infectious body. In the lungs and liver exclusively, its size may be the same as that of the infarction, elsewhere it assumes the miliary form. The explanation of this fact is that in the former case the emboli arise from thrombi in the large veins, in the latter from the delicate endocardial vegetations. The size of the abscess depends on the size of the embolus, its degree of malignity, and upon the reactive powers of the surrounding tissue. The smallest emboli with a specific action may produce extensive suppuration, as seen in cases of purulent panophthalmitis following the plugging of a minute artery of the choroid.

Experiments made with irritative emboli upon the ear of the rabbit, produced universally inflammation and suppuration about the embolus, with demarcation and exfoliation of the portions affected, and perforation. Though a combination of the specific and purely mechanical effects of the embolus rarely occurs in human pathology, Cohnheim observed the effect of irritative emboli after cutting off the various anastomoses of the auricular artery. There resulted side by side, local inflammation, purulent deposits, and multiple peripheral mummification, in other words, embolic abscesses and necrosis.

With regard to the formation of thrombi, Zahn states that from direct observation *(frog's mesentery)*, "alterations of the intima are made evident by the agglomeration and adhesion of white blood-corpuscles, and the formation of thrombi commences and is completed by the same elements." Durante and Dudukaloff conducted a series of experiments independently of each other, but arrived at different results. The former states that 3–4 days after the application of a single ligature about the vessel, the intima became converted into a thick layer of round and oblong cells, with one or two nuclei. These cells pressed into the clot in a circular manner, or penetrated it at different points, the newly formed bloodvessels following the course thus established.

The clot diminished in volume, the red corpuscles flattened, the white became enlarged, the substance became glassy or rich in fat granules. Then spindle-shaped cells and fibres developed. Finally there remained of the coagulum, grains of pigment from the red corpuscles; the white corpuscles and fibrine became converted into fat granules. The media and adventitia show but little reaction.

When a double ligature was applied, the intima between the two becomes destroyed, and the media is converted into a mass of young cells closely packed together. At the end of the process the vessel walls are no longer to be recognized. The author describes two forms of thrombus softening, a fatty metamorphosis of the transitory, and a suppurative softening of the permanent thrombus, the former being normal and physiological.

Dudukaloff gives as the results of his observations the following alterations in the parts of the wall of the vessel in the vicinity of the ligature:—Accumulation of cells about the vasa vasorum of the adventitia, and at various parts of the vessel wall, especially of the muscular coat; the formation of fibres from the cells coming from the adventitia; the development of vessels between the cells; the immediate union of the young tissue and its vessels with the adventitia, and the entrance of the same into the lumen of the vessel near the point of ligation. In conclusion it is stated that the manner of the preparation was not such as to give information with regard to the participation of the endothelium in the process of growth.

Sarcoma of the Vena Cava Inferior.—Perl reports (*Virch. Arch.*, vol. 53, p. 378) the case of a woman, æt. 34, who had suffered from pain in the sacrum and abdomen for a year. Œdema of the feet, anasarca, especially of the right side, and ascites followed. Death finally resulted from œdema of the lungs.

At the autopsy double hydrothorax was found, dilatation of the veins of the abdominal walls on the right side. Beneath the liver a tumor of the size of the fist was seen, belonging to the wall of the enormously dilated lower vena cava. It extended upwards as far as the entrance of the hepatic vein, and downwards to the entrance of the renal veins. The intima of the renal veins, as well as that of the cava, was perforated at numerous points; their canals were filled with thrombus-like masses of the tumor.

The neighboring lymphatic glands were affected, but there was no metastasis elsewhere. Virchow examined the growth and pronounced it a myosarcoma, originating in the wall of the inferior vena cava.

Organs of Respiration.

Histology of Membrane of Croup.—Steudener (*Virch. Arch.*, vol. 54, p. 500), after describing at length the appearances presented, thus expresses himself:—"The croup membrane is therefore to be regarded as a true exudation, originating from the migration of innumerable colorless blood-corpuscles from the vessels of the mucous membrane, their appearance upon the surface, where, without participation of the epithelium, which is in great measure exfoliated, they become cemented by the formation of fibrine from the transuded blood-plasma."

Syphilitic Cicatrix of the Bronchus.—The case, regarded as unique, is reported at length by Hüttenbrenner (*Jahrb. f. Kinderheilkde*, 1872, p. 338).

Pulmonary Gangrene in a Child. — Dr. McNalty reports the case (*Med. Times and Gazette*, July, 1872, p. 67). Age, 3½ years; admitted to the hospital for bronchitis following measles. Blood was coughed up, and passed per anum a day or two immediately preceding death. Extensive gangrene of the lung was found at the autopsy.

Hœmoptysis as a cause of Phthisis.—Sommerbrodt (*Virch. Arch.*, vol. 55, p. 165), investigates this point experimentally. A catarrhal pneumonia results from the extravasation of blood into the pulmonary alveoli, from which pneumonia the animals experimented upon always recovered. He infers that it is probable that a similar form of pneumonia results from the entrance of blood into the pulmonary alveoli of the human species, and that in persons otherwise predisposed to phthisis, the pneumonia becomes chronic, cheesy, and thus terminates in phthisis.

Organs of Digestion.

Erectile Tumor of the Intestine.—Laboulbène (*Med. Times and Gazette*, June, p. 740) communicates the case, regarding the specimen as the first on record. Rokitansky, however, speaks of the occurrence, though rare, of these tumors. The man, æt. 74, vomited blood, passed it by the anus, and died soon after with symptoms of internal hæmorrhage. In the duodenum, a little below the orifice of the bile and pancreatic duct, was found an oblong tumor, of the size of an almond. The mucous membrane over the tumor presented a small irregular ulceration. On section, the mass consisted of capillary vessels dilated at several points, and was found to have invaded the entire substance of the mucous membrane at that part.

Loss of a portion of the Intestines.—McCollom (*N. Y. Med. Journ.*, 1872, p. 183), Hahn (*Berl. Klin. Woch.*, 1872, p. 168).

In McCollom's case symptoms of intussusception occurred, 12 days after the commencement of which 6½ inches of the small intestine came away, per anum, in a stage of advanced decomposition. During the following two days there were frequent copious, dark-colored, offensive, watery dejections. Death occurred about a month afterwards, symptoms of peritonitis intervening. At the autopsy evidences of general peritonitis were present. There was also a collapsed ovarian cyst which had become adherent to the small intestine, near the ileo-cæcal junction, and communication had been established between the cyst and the intestine, through which the fluid contents of the cyst had drained away.

Hahn related to the Berlin Medical Society that a woman 32 years of age, had brought to him, a week previous, her entire large intestine and an ell of the small intestine preserved in spirit.

The patient was in labor for the 5th time some 3 months previously, version was performed, the obstetrician endeavored to remove the placenta, the colon was seized, stripped of its peritoneal investment, drawn down, with it a part of the small intestine, which was invaginated a foot in the large intestine. According to the husband, this, with 1½ feet of the small intestine still protruding, was cut off.

The woman remained in bed 14 days without a trace of peritonitis. Seven weeks after delivery she was seen by Dr. Hahn, looking well. In the posterior vaginal arch there was an unnatural anus through which the fæces were evacuated. Since the birth almost no fecal matter has escaped through the rectum. In this is a stricture through which the fore-finger can pass; water injected into the rectum entered the vagina.

Results of Permanent Closure of the Ductus Choledochus.—Mayer (*Med. Jahrb.*, 1872, p. 133) has investigated this subject experimentally, and concludes: "1. I was able to establish that as a result of biliary stagnation no fatty degeneration of the liver cells occurred, nor were the same dissolved in the stagnant bile; 2. The stagnant gall caused an alteration of the cell-nucleus; 3. New cells appeared in the liver after bile-stagnation, which are smaller than the smallest liver cells, and are perhaps identical with pus corpuscles; 4 After continued bile-stagnation an increase of the hepatic connective tissue takes place, not only of that surrounding the blood and bile vessels, but the development of the connective tissue advances into the interior of the hepatic acini."

Results of artificial plugging of the vena portæ.—Solowieff (*Centrbl.*, 1872, No. 22) experimented on dogs, and found that if the portal vein was totally ligated at once, death occurred very rapidly. If one of the great veins entering the portal vein was tied, or if the vena portæ was so ligated that the lumen became gradually diminished, the animals could live for weeks and months. If the animal died 6–18 hours after the operation, the liver was slightly diminished in size, on section anæmic, dry, with fresh clots in certain of the vessels.

The cells were changed in form and size, opaque, finely granular, the nucleus at times visible, again not to be seen. Where the animal lived longer, a more or less decolorized, tolerably firm thrombus was found in the vessel. In its centre a finely granular, yellow mass was to be seen, softening. At times the thrombus could easily be torn from the wall, at times it was firmly adherent, the intima thickened. The liver was diminished in size, firm, anæmic, dry, dark brown. The cells were small, red, containing fat drops; the nucleus found with difficulty, at times not to be detected. Thrombi were found in the branches of the portal vein; the connective tissue surrounding these vessels increased, containing spindle-cells, whose projections often penetrated the spaces between the liver cells. Numerous young cells were seen in the adventitia of the vessels, and in the canal of certain biliary passages a brown mass, strongly reflecting light.

URINARY ORGANS.

Bright's Disease.—Delafield (*N. Y. Med. Journ.*, 1872, p. 239). Gull & Sutton, Johnson (*Brit. Med. Journ.*, June, 1872, p. 219). Delafield considers three conditions of the kidney as giving rise to the phenomena of Bright's disease: 1. Chronic congestion of the kidney; 2. Chronic diffuse nephritis; 3. Chronic parenchymatous nephritis. The appearances in each form are accurately described.

Gull and Sutton read a paper before the Med. Chir. Society, illustrated by drawings and specimens, wherein they endeavor to show that there is a diseased state characterized by hyalin-fibroid formations in the arterioles and capillaries, outside the muscular coat. They consider this change as the primary and essential condition of chronic Bright's disease with contracted kidney.

The microscopical preparations were considered by Johnson, and others, as deceptive and not justifying the conclusions.

Reports of Medical Societies.

MIDDLESEX EAST DISTRICT MEDICAL SOCIETY.

AZEL AMES, JR., M.D., SEC.

THE Society met July 17th, at Lexington, at the house of Dr. Holmes; the President, Dr. J. M. Harlow, of Woburn, in the Chair.

Convulsions.—Dr. Chapin, of Winchester, reported the case of a patient under his observation, a young lady six months advanced in pregnancy, affected with convulsions, apparently of a puerperal character. The urine was highly albuminous; s. g. 1025°. Some anasarca and ascites, and considerable œdema of feet. Impaired vision, but hearing normal. No symptoms of miscarriage. No definite labor-pains of expulsive character, though at one time there was a slightly perceptible periodicity to her paroxysms. Patient was etherized during the convulsions, which were several in number, tonic in character, and of general puerperal appearance. Eight grains of bromide of potassium was given every two hours, with marked good effect. Opium was not well borne by the patient, but chloral hydrate was administered to advantage. There was a speedy improvement under treatment, both in the general condition of the patient and in the character of the urine. The albuminuria disappeared with remarkable rapidity. The patient had, just previous to the attack, been suffering from a severe "cold."

Dr. Chapin desired the opinion of the gentlemen present as to the real nature and classification of the case, the probable immediate cause of the convulsions, and whether there was reason to confidently expect a return of the paroxysms at full term.

Dr. Mead remarked upon the participation of displacements of the uterus in the causation of convulsions, and the necessity of mechanical appliances in their treatment, his remarks being followed by a general discussion upon the subject of pessaries, and, by request of the Society, Drs. Jordan and Cutter were invited to present the pessaries invented by them for examination at the next meeting.

Early Menstruation.—Dr. Holmes reported the case of a child born on Tuesday, and the following Tuesday the nurse stated that it was menstruating, of which, upon examination, there appeared to be somewhat rational signs. The "show," having commenced on the fifth day after birth, continued at the rate of two teaspoonsful per day for two days, ceasing on the third. There were no abnormal appearances about the vulva or other parts of the child.

Dr. Jordan, of South Reading, reported a similar case under his observation, continuing for the same length of time.

Dr. Chapin reported the existence of a case of persistent menstruation at the age of one year.

Scarlatina.—Dr. Winsor, of Winchester, read the report of a case of scarlatina occurring under his observation.

E. K., 3½ years old, was attacked with scarlatina on the morning of Feb. 6th, 1872, an elder sister of 7 years having been seized Feb. 4th, and a younger sister of 18 months being taken down on the afternoon of the 6th. There were no other children. Exposure to the disease had probably occurred about one week before. Although all the children had the febrile part of the disease severely, with marked sore throats and swelling of glands, and decided delirium, the girls recovered nicely. The boy was of the most nervous and irritable temperament imaginable, never still during his waking hours when well, and altogether ungoverned, so that during his sickness he was ungovernable. Although slender and rather small of his age, his general health was fair. His right eye had suffered from conjunctivitis for nearly twelve months, now better, now worse, but always inflamed to some degree. This child had the fever, the eruption, the sore throat, with rather unusual severity; and he was also actively delirious. From the first his stomach was very irritable, and might be said to tolerate nothing, whether drug, drink or food. On the fifth or sixth day, as the fever began to subside, the mouth began to be very sore, the entire mucous lining being thickened, whitened, and covered with viscid secretion. Although every attempt at examination was furiously resisted, it could be made out that the tongue was no more swollen than in some cases where the surfaces of the cheeks are not so severely affected, and from an occasional glimpse of the throat and from his general behavior, it was judged that the inflammation there was hardly as severe as in the mouth. By the tenth day, the nose, ears and eyes were in as nearly the same state with the mouth as was consistent with their respective extents of mucous surface. The inflammation was particularly severe in the diseased right eye. Every attempt was made to keep the affected parts clean, but they were always met with the same furious resistance from the patient, who would rouse from what appeared to be an almost lifeless condition to one of furious screaming, kicking and writhing, which alike defeated the attempts of the physician and nurse, while it brought the boy to a point of exhaustion which was evidently more dangerous to him than the unremoved discharges could be to any of the organs which were especially threatened. It was, therefore, directed that the eyes, ears and nose should be let alone and that the mouth should be swabbed out, at what would, in an ordinary case, be considered long intervals. There was particular apprehension lest the already weakened outer tunics of the eye should be ruptured in the struggle to cleanse the organ, a misfortune Dr. Winsor believed he had known once to happen. To make matters worse, the child picked incessantly at the ulcerating and suppurating surfaces, and it was necessary to hold his hands hour after hour for more than a fortnight.

As to treatment during these three weeks, it would be useless to go into details. Stimulants, sedatives and nutrients were thoroughly and perseveringly tried, and with this result: nothing stayed down, except ice and milk and lime-water, and these not always or entirely. For many days in succession there was reason to suppose that not more than a small teacupful of milk and lime-water was retained in the stomach daily. Emaciation was extreme, while very little sleep was obtained. Early in the third week it was plain that a very considerable portion of the mucous membrane of the mouth and perhaps some of the submucous tissue was sloughing off. Early in the fourth week, swelling of the lids of the right eye had sufficiently subsided to allow of some voluntary opening of them, so that at a lucky interval, after patient watching, a glimpse of the cornea was obtained and there was no mistaking the perforating ulcer. March 10th, there was incipient hernia of the iris. Although there was now less reason to dread that he would suffer from exhaustion in struggling against attempts to make local applications, it could scarcely be said that such attempts were more successful than in the earlier weeks of his sickness, and it was altogether in vain to try to touch the edges of the ulcer with any accuracy. Once he was etherized, and a thorough examination was made and the edges were touched with nitrate of silver. The irritation of the stomach was so far aggravated by ether on this occasion that anæsthesia was not again attempted.

At this time, he was eager for ice, water, tea with milk in it, milk, broths, &c., and took a great deal, but was not certain to retain anything, except the ice or the milk and lime water. He was gaining strength slowly, slept more, though far from enough, and the mouth, eyes, nose and ears were healing; but the mouth bled at the slightest movement, and when a glimpse into it was obtained, one saw that there were likely to be cicatricial bands along the buccal surfaces and on parts of the tongue. Hitherto, he had refused to take any solids into the mouth, but about the thirtieth day he began to ask for them, although he by no means overcame his tendency to eject them when swallowed. Three months after the fever began, the finger detected several cicatricial bands in the patient's mouth, and a decided contraction of the cavity. Through May, there was much vomiting of mucus. Early in June, however, less mucus was raised, but the condition of the mouth was but little improved; within the last six weeks, however, the bands have softened and lessened, and the whole mouth is more pliable. Solid food is often vomited, meat generally, and anything acid is certain to provoke nausea. It is probable that the œsophagus and stomach suffered from a destructive ulceration similar to that which is known to have gone on in the mouth, and that their mucous membranes have been only partially restored, while the nerves underlying these membranes continue to be imperfectly protected, a condition which might be expected to cause irritability, perverted secretion, and perhaps irregular, peristaltic contractions.

There still remain partial opacity of the cornea, adhesion of the iris (but no longer protrusion), loss of aqueous humor, and probably to some extent of the vitreous humor, since the ball is somewhat flattened. There seems to be no perception of light in this eye.

Recovery in this case appears to have been due mainly to the recuperative power of nature, which seems to be peculiarly strong in certain contradictory, combative, ugly and selfish temperaments.

M. Cersoy, of Langres, writes to the *Bulletin Général de Thérapeutique* for June 15, that in the treatment of the hæmorrhagic form of smallpox he endeavors to produce an artificial eruption by means of the external application of croton oil or of tartar emetic.

Bibliographical Notices.

Constitution and By-Laws of the Boston Society for Medical Observation, with a list of Officers and Members. Boston: 1872. Pp. 22.

A little pamphlet containing the Constitution and By-Laws of the Boston Society for Medical Observation has just been published by David Clapp & Son.

It is interesting to some of us to look over the list of past and present members, and to recall the faces and voices that used to be seen and heard around the Monday evening board. Those were hours of study and debate and criticism. If the comments, at times, were severe, they were made with no ill feeling. If there were what appeared to be triumphant chuckles over what were supposed to be proved mistakes, on the part of the observer, the commentator was ready to be assailed in his turn. If there were, in the spirit of professional boyhood, unintentional offence sometimes given, we do not believe that the remembrance of it rankles in any heart. Indeed, warm friendship and most heartfelt respect exists among those who sometimes criticized with unsparing, perhaps unjust severity.

Of the eight original members, Dr. Henry I. Bowditch alone continues his connection. Two only of the eight have died. Who does not remember John D. Fisher, the oldest of them all, whose opinion was valued and sought upon many subjects by men much older than himself? John B. Walker, whose early death and its painful history are fresh in many of our memories, was one who would have tested the ability of the best men among us to obtain a higher professional eminence. And as we read down the list, we come upon the names of Phipps, Parker, Andrews, Parkman, Alley, Coale, Page, Keep, Ware, Sargent and Ropes. There are those of us who watched over the dying beds of some of these, and we all remember the sacrifice of Robert Ware, by the camp fever in South Carolina, and paint the adventurous and impetuous Lucius M. Sargent, who could not be satisfied with the surgeon's laurels, but must put on the sword of battle and lose his life upon the field.

Of the one hundred and twenty-nine physicians who have been members of this Society, about a third did service during the war of the rebellion, either in the army or navy, or under the direction of the Sanitary Commission. Several gentlemen have retired from the profession altogether, but most of them remain, and many of these are by no means unwilling to give credit to this Society for the habits of observation which they learned.

May the success of the Boston Society for Medical Observation continue! C. E. B.

The Medical Register for the Cities of Boston, Cambridge, Charlestown and Chelsea. By Francis H. Brown, M.D. Boston: Press of John Wilson & Son. 1873. Pp. 173.

There has long been felt in this city and vicinity the want of a condensed, practical handbook, containing information of interest to medical men and others, of societies, schools and institutions, and a statement of those public and private charities, in which professional men are especially interested. This want has, at last, been supplied by the *Medical Register* for Boston and vicinity. In this handy little volume the compiler has arranged detailed accounts of all those societies and associations in which members of the medical, dental and pharmaceutical professions are engaged, together with lists of officers and members and the time and place of meeting. He gives, also, a description of the various hospitals, dispensaries and charitable institutions, together with such information concerning admissions, &c., as is needed by those seeking assistance for their patients or themselves.

A complete list is given of regular physicians with their residences and office hours, and of dentists and pharmacists belonging to the regular societies. Laws and ordinances affecting physicians and others, lists of National, State and City Medical Officers, Life Insurance Examiners, Medical Museums, Prizes and Libraries, all have their appropriate place and can easily be found by a table of contents and a copious index. A carefully prepared list of male and female nurses closes the book.

In short, this little book contains a vast amount of information which medical men constantly need; it is sure not only to meet with a most hearty welcome, but the medical profession will wonder why such a volume has not been published before. Hereafter, it will be considered as indispensable in our offices as the Boston Directory or Farmer's Almanac.

The *Register* will be at once issued to subscribers, and may also be obtained at the medical book stores. W. R.

Resections of Maxillary Bones without External Incision. By D. H. Goodwillie, M.D., D.D.S.

This is the title of an article reprinted in a pamphlet form from the *New York Medical Journal* of July, 1872. The author gives a description of various instruments used by him for this purpose, the most deserving of mention among them being the oral saw. "It consists of a handle, to which is firmly fixed a U shank to take in the cheek or lip during the operation. On the other extremity of the shank is a square socket to hold saws or knives of different sizes, these being fastened by a thumb screw." The saw or knife may be turned in the socket so as to cut in four directions.

In operations when the ordinary bone forceps could not be employed, this would appear to be a very useful instrument.

The first case mentioned is an osseous tumor of the right superior maxillary, involving the alveolar process and a portion of the palate, and encroaching to some extent upon the antrum. The periosteum being carefully stripped from the surface of the tumor by means of periosteum elevators, the growth was removed with the oral saw. The careful preservation of the periosteum and the ingenious adaptation of the saw are the interesting points in this operation. We fail, however, to see the necessity of external incisions in such cases as this, even with other instruments than those employed.

It seems, indeed, as if the periosteum and mucous membrane of the hard palate might be saved in resections of the upper jaw oftener than it is. A firm and useful palate could often be retained, and the services of an obturator dispensed with. In the present case a year after the operation the palate appeared as firm in the resected side as upon the other.

The other operations described are resections of portions of the lower jaw, in one case for an "osteo-dental" tumor, in the other for a necrosis.

An account of a disarticulation of the lower jaw without external incision, as performed by him on the cadaver, is also given. Such an operation can undoubtedly be performed, and indeed has been done successfully, but we can hardly think that the danger arising from hæmorrhage can ever permit it to become a very safe procedure even in the most skilled hands, and certainly not a popular one with the physician.

W.

Doctor in Medicine, and other Papers on Professional Subjects. By Stephen Smith. New York: William Wood & Co. 1872. Pp. 308.

The author presents in this volume a series of contributions on medical subjects of a miscellaneous character. The papers were originally published in various periodicals, and have been compiled in the present form as a more enduring publication. The writer, from his practical experience in the various departments of professional life, can speak with authority, and physicians and the public in general will find in this little book sound views concerning subjects of vital interest, medical and otherwise. The papers on matters pertaining to public hygiene are particularly interesting, as, for example, the discussion of the duties of coroners, of the crime of abortion, and of asylums for inebriates.

The Ten Laws of Health; or how Disease is Produced and can be Prevented. By J. R. Black, M.D. Philadelphia: J. B. Lippincott & Co. 1872. Pp. 322.

The author is a believer in the possibility of a sanitary millennium in which "all uncertainty in reference to the preventability of nearly every form of disease must disappear, and the laws pertaining to health be capable of definite settlement; so that men and women, by living accordantly with them, may live, as they ought to live, free from disease, and die, as they ought to die, from old age, and not by the violent and unnatural process of disease."

As an aid in the accomplishment of this beneficent end and as a contribution to the already voluminous and still developing literature of sanitary science, we have this hygienic decalogue from the pen of a graceful writer. It is refreshing and encouraging to find a medical writer so hopeful and emphatic in his belief in the preventability of disease and so clear in his exposition of the principles already available for practical application. The medical reader will endorse heartily almost all that the author says to him and to humanity in general about ventilation, food, exercise, clothing, the sexual function, climate, occupation, cleanliness, rest and sleep, and the intermarriage of relations—the subjects of the ten laws of health—and will recognize the benefits to be derived by mankind in proportion as their hearts are inclined to keep these laws.

Medical and Surgical Journal.

Boston: Thursday, October 24, 1872.

MEDICAL REGISTRATION.

Readers of the English medical journals will have noticed, during the past year or two, frequent allusions to the "Registration Act" and other laws which render the practice of Medicine in England legitimate only by qualified practitioners, that is by those only who have been regularly educated, and have shown their right to be included under the Act by a suitable examination. The attempts of legitimate medicine to free itself from pretenders to professional knowledge have met with success under these laws of the United Kingdom in more than one case recently; and we have read the accounts of such trials with much satisfaction, and have, from time to time, noticed them in our columns.

The strictures of English editors and correspondents on the schools of America have called forth various comments on this side the ocean; some of regret, that our brethren allowed themselves so unjustly and indiscriminately to denounce *all* American diplomas, and some of approval, that unworthy institutions in our own country, whose existence all honest men deplore, were so severely dealt with.

The *Directory* of the British Medical Association has hitherto been looked on as a safe criterion on which to found an estimate of professional standing. Admission to this list has, all along, been carefully guarded, and, partly to this cause, perhaps, is due the fact that quackery is less openly practised in England than in America. The existence of bogus institutions in the United States has been regarded as a sufficient reason—and justly so—for looking with suspicion on all American degrees. We are glad to note, by a communication to the English periodicals, that genuine "foreign degrees" are, in future, to be more fully recognized in the *Medical Directory*, and that our own practitioners can, if they desire, and under certain restrictions, be admitted to the official list. The article alluded to, signed by the editors of the *Medical Directory*, explains itself.

"In the autumn of last year, the traffic in foreign degrees had attained proportions which demanded from us a prompt effort for its discouragement. It was obviously our duty not to admit into the *Directory* degrees procured solely by purchase; and we had to discover what means we possessed of distinguishing degrees of that character from those obtained after due examination. Our resources in that respect were found to be inadequate, and we were compelled to have recourse to the regulation adopted by the medical council. This regulation falls harshly on those whose foreign degrees have been honorably gained, and, with a view to its modification, we have this year communicated with several foreign Universities; but as we have received responses from a few only, our power of detecting the 'bogus' degree still remains imperfect. We are, however, desirous of giving insertion to foreign degrees in medicine and surgery fairly obtained, and they will, in future, be inserted in the *Directory* under *any one* of the three following conditions:—

"1. That the degree *is registered* under the Medical Act; or

"2. That the possessor has qualified in Great Britain or Ireland, and *is practising abroad;* or

"3. That the holder of the degree has also a British qualification, and that *his possession of the foreign diploma and its attainment by examination have been certified* to the editors of the *Medical Directory* by two registered practitioners not themselves possessing foreign degrees."

In our own country, registration, as practised in England, is unknown. Membership in this or that State Society is the only patent we possess to respectability and presumed honesty, and even this criterion, as we well know, is susceptible of great error. Recent publications in our large cities, under the title of Medical Registers, have sought to draw stronger bounds by excluding those who to appearance did not practice legitimate medicine; but the editors of these works find their duty a difficult one in drawing the legitimate lines.

The editor of the *New York Register*, the tenth volume of which has recently come to our hands, admits those "who are in regular standing, and have not violated the Code of Ethics of the American Medical Association and the Medical Society of the State of New York." As every man in this country is the arbiter of his own actions and is permitted to put his own interpretation on the requirements of a code; as many an honest physician may be regularly irregular; as many a man, from actual poverty, from certain conscientious scruples, from his inability to see the benefit to be derived, or other reasons, fails to join the State Society—so it has been claimed that the legitimacy of a physician should not be decided by any one single person or by an association, of limited numbers, like the New York Medico-Historical Association. Our knowledge of the gentlemen composing this association, under whose auspices the *New York Medical Register* is published, leads us to place implicit reliance in their honesty and their desire, so far as possible, to give a true list of legitimate practitioners. The editor of the very excellent little volume before us, however, has found his prerogative questioned by men who claim that they have been overlooked and unjustly treated. We do not question the discretion of the editor, whom we know to be thoroughly a gentleman, or the care he has exercised in excluding unworthy persons; we only mention the fact as showing the difficulty of separating the worthy from the unworthy, and of the need which exists for an honest, official system of registration.

The editor of the *Philadelphia Register* assumes no other responsibility than that of giving a directory of those "who are graduates of respectable medical schools who are *reputed* to be in the regular practice of medicine in Philadelphia." (The italic is our own.) We think the same chance of uncertainty is present in this as in the New York plan, that, namely, of misjudging the true standing of both good and bad, the liability which one or a few men must incur of rejecting the former and accepting the latter.

The editor of the *Chicago Register*, as we learn from an editorial in the *Chicago Medical Journal*, will include those physicians "in good standing." The editor of the *Journal* expresses our own views by pointing out the liability to error in this, or, in fact, in any discrimination.

The method susceptible of the *least* error would seem to depend on membership in large and comprehensive Societies, to which every properly educated man could be admitted on application and examination. At the best, this plan cannot be considered perfect. We are met by the criticism that the best of our Societies include very unworthy persons, a fact painfully apparent to many of us, but we know that by far the largest portion of such bodies are respectable and trustworthy. No properly educated and honest man, be he physician, dentist or pharmacist, on making proper application, will be refused admission into the State Society of his profession ; it is his own fault, therefore, if, by his failure to join the Society, his name is omitted from a general register. The plan of employing the lists of members of State Societies, as it avoids distinctions which we feel no single person is qualified to determine, would seem to be the fairest method in all respects ; such is the plan adopted by the author of the *Medical Register* for Boston and vicinity, which we find on our table ; whether or not he is right in adopting such lines of demarcation remains to be proved.

THE LATE RESIDENT PHYSICIAN OF THE MASSACHUSETTS GENERAL HOSPITAL.

Members of the profession in all parts of New England will learn with regret that Dr. Benjamin S. Shaw has resigned the position he has so long and so ably held at the Massachusetts Hospital. For fourteen years he has performed the arduous and delicate duties of his office with the most marked discretion and ability. He has filled his office, as few men have ever done, to the thorough satisfaction of all concerned. He undertook the position as a pioneer. No medical superintendent had preceded him, by whose experience he could profit. The expediency of the step was doubted by many of his friends, and whether it was the right thing for the hospital was a matter of doubt to many. All these questions Dr. Shaw has settled satisfactorily. He has given his best years to the institution, and leaves it with the good will and friendship of every one connected with it.

The secular papers have recently recorded the gift to Dr. Shaw, from the employés of the hospital, of a beautiful mantel clock, as a mark of their regard. We are permitted by the medical staff to put on record a letter conveying to him a similar expression of their esteem :—

Massachusetts General Hospital,
Boston, Sept. 30, 1872.

Dear Sir,—The physicians and surgeons of the Massachusetts General Hospital beg your acceptance of the accompanying silver salver.

In expressing their regret that the agreeable relations which have existed between yourself and them for more than fourteen years should now be terminated by your resignation, they desire to acknowledge their personal obligation to your executive skill, and to bear witness to the progress and improvement of the hospital during your connection with it.

With their best wishes for yourself and your family, they remain your friends,

George C. Shattuck,
C. Ellis,
S. Cabot,
H. K. Oliver, Jr.,
Algernon Coolidge,
Francis Minot,
H. J. Bigelow,
R. M. Hodges,
George H. Gay,
Samuel L. Abbot.

To Benjamin S. Shaw, M.D.

The Fever Tree.—Dr. Pedro L. N. Chernovis of Bahia, in a late number of the *Gazeta Medica da Bahia,* gives a very interesting account of the history, uses, propagation, medical and miscellaneous properties of the *Eucalyptus Globulus*, an immense tree introduced into various provinces of Brazil from Australia, and called, as in Spain, *arvore da febre*, from its " marvellous results in the treatment of intermittent fevers." The tree is colossal, sometimes attaining a height of 300 feet, and a diameter of 30 feet ; ranging often from 50 to 70 feet in height, and 10 to 20 in diameter. All parts are aromatic, less so in the trunk and bark, more so in the small roots, flowers, and leaves. It is a comparatively new medicine of much promise, and is given internally for intermittent fever, in doses of from one to four drachms of the powdered leaves—twice during the intermissions—or in infusion (two drachms in four ounces of boiling water), morning and evening. Aqueous and alcoholic extracts, in doses of from two to eight grains, are also used for the same disease. One or two drops of its essential oil, on sugar, in pill or capsule, are advised in bronchial and pulmonary affections, laryngitis and catarrhal aphonia.

Feuilleton.

LOUIS AND HIS CONTEMPORARIES.

The great Master in Medicine, Louis, died in Paris, on the 23d of August, 1872, at the age of 85 years. A friend and one of his former pupils has prepared for the Journal the following personal memories of this eminent man and of a few of his contemporaries of the Parisian Medical School of forty years ago.

In the "*Panthéon des Illustrations Francaises au xix. siécle,*" published at Paris, 1855, is found the following terse and most modest biography, which Louis allowed to be published with his portrait.*

"Louis (Pierre Charles Alexandre), Honorary Physician of the Hospitals at Paris, Member of the Imperial Academy of Medicine, President for life of the Society for Medical Observation, Officer of the Legion of Honor, was born at Ai (Marne) in 1787.

"He was destined by his family to the study of the law; but he soon abandoned that profession in order to study medicine.

"Having received the rights of Doctor of Medicine in 1813, he left France in 1814 and went to Russia, where he practised the profession, after having obtained at St. Petersburg a diploma of Doctor in Medicine.

"On his return to Paris, in 1820, medical science, under the influence of the writings and public teaching of Broussais, was in great confusion. Much was in doubt, a painful doubt, and in order to relieve himself from it, he resigned practice, and gave himself up wholly to the observation of patients at the Hospital of La Charité. This he did for six consecutive years without other occupation.

"The study of the facts there collected enabled him to publish successively—

"In 1823 a memoir on perforation of the small intestine in acute diseases; a second, on croup in the adult; a third, on the communications between the right and left cavities of the heart (*Archives de Médecine*);

"In 1824 two memoirs on the pathological anatomy of the mucous membrane of the stomach; another on pericarditis;

"In 1826 a memoir on abscess of the liver; another on the condition of the spinal marrow in Pott's disease; a third on sudden and unforeseen deaths; a fourth upon slow but anticipated deaths, but which anatomy will not explain; a fifth on the treatment of tænia by the Darbon potion (*Archives de Médecine*);

"In 1825 his anatomical researches on phthisis (1 vol. 8vo.), reprinted with many additions in 1843;

"In 1828 researches on the typhoid affection or fever (2 vols. 8vo.), reprinted with many additions in 1841;

"In 1838 the examination of Broussais' examination (in 8vo.);

"In 1835 researches on the effects of venesection in some inflammatory diseases (8vo.);

"And, finally, in 1837, in the first volume of the '*Mémoires de la Societé Médicale d'Observation,*' a dissertation on the examination of patients, and the study of general facts (pp. 63); a memoir on vesicular emphysema of the lungs (pp. 100), and in the third volume of the same publication his researches on the yellow fever of Gibraltar, where he had been sent in 1828, with Messrs. Chervin and Trousseau, in order to observe the yellow fever as it prevailed at that place (pp. 300)."

Such is the simple history of Louis's scientific life as given by himself without comment, viz., fifteen memoirs and four ample octavo volumes published between 1823 and 1837. These works, though but little read now, formed an epoch in medicine at the time they were published. They are all founded on analyses of cases recorded without prejudice, but with the greatest accuracy and much detail, by the bedsides of the sick. They form the brightest exponent of the so-called "Numerical System," of which Louis was the father. This system consisted in counting the various items of several cases, whereby we are enabled to state the exact number of cases in which certain symptoms or lesions are observed. It has been the object of ridicule, but, nevertheless, its very enemies have felt its power, at least in certain directions.*

Louis's works on phthisis and typhoid fever were considered, when first published, and are considered now, as far as they go, a collection of laws of these diseases derived, as the astronomer derives his laws, from simple observation and a wide comparison of many such. The "Numerical Method" is virtually now carried out under our more improved means of investigation in which, from the nature of the case, there are fewer observers. We take no one man's assertion of a fact on any question of scientific interest, but require that numbers of men should confirm or reject it after numbers of observations made by each. It has had a distinct effect on some of the best writers we have had in England and America during the past thirty years, even when some of them would hardly admit that they were disciples of Louis.

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* Panthéon des Illustrations Francaises au xix Siecle, contenant un portrait, une biographie et un autograph de chacun des hommes les plus marquants, dans l'administration, les arts, l'armée, le barreau, le clergé, l'industrie, les lettres, la magistrature, la politique, les sciences, &c. &c. Publié dans la direction de Victor Frond, Paris, imprimeur, 57 rue de Seine, 1865.

* One of the squibs of the day was somewhat of this nature. Louis impressed upon all his students the importance of recording the hereditary tendencies in each case. The story runs that an over-zealous and not very wise pupil, summoned suddenly to set a broken leg, would do nothing without recording. Accordingly, he took out his note-book and recorded name, age, and the ancestral troubles of the sufferer, and, according to rule, asked, "Were your parents or grandparents, uncles or aunts, liable to broken legs or arms?"

But the immediate influence of Louis upon several English and American students was very great. They carried home his ideas, and these ideas spread rapidly in England and America.

SOCIETY FOR MEDICAL OBSERVATION AT PARIS.

In 1832, a few students proposed to form a Society for Medical Observation, and they asked Louis to be their President. They also requested Messrs. Andral and Chomel to allow themselves to be considered as Honorary Presidents, as they would thereby show their respect for the objects of the Society. All these gentlemen consented. The objects were:—

1st. To make all the members of the Society good observers of disease, by requiring each in turn to go through a kind of apprenticeship in the recording of observations, and in submitting such observations to the criticism of every member of the Society.

2d. They hoped to be able to influence the medical mind generally, and bring it to the comprehension of the great value of accurate observation of disease.

3d. They also hoped, either as a Society or as individuals, to publish memoirs which, being in themselves strict deductions from facts, would be real additions to medical science, while at the same time they would present fair examples of the Numerical Method as used by Louis in medicine.

These three objects I believe were attained. Societies for Medical Observation were also established in London and Boston. It must be admitted that the plan pursued by the parent Society was not likely to persuade the majority of students to join it, even though they might admit the value of accurate observation, and the importance of becoming skilled observers. That plan was to have weekly meetings, at which each member in turn was required to read an observation that had been recorded at the bedside. The members were arranged around a table that occupied three sides of the room, and each person had paper and pen or pencil before him. He was prepared to listen carefully to the reader, and equally prepared to note the most trivial omission or a too inconsiderate deduction made by the reader. Each subsequently criticized the paper from these notes. This was done in the keenest manner. Louis, as President, summed up the result of the meeting by not only criticizing the reader, but also his critics' remarks, so far as he deemed them proper or worthy of further remark.

Those who had the privilege of attending these meetings, well remember these criticisms, all of which were made in the most gentlemanly manner, and evidently in no captious spirit, but simply with the determination to make as much out of the occasion as could be made towards the clearest elucidation of the subject. No member of the Society ever allowed any *sentimental* delicacy towards a reader to prevent him from noticing anything which he deemed erroneous or wanting in any paper. At the same time there was no petty quibbling, no personal attacks, and all bore good humoredly any remarks, however severe.

MEMOIRS OF THE SOCIETY FOR MEDICAL OBSERVATION AT PARIS.

Since its commencement in 1832, the Society in Paris has published three volumes 8vo. Although some of the subjects investigated may not happen to be those most interesting to young medical minds of the present day, and although the investigations were less perfect than we have now the means of making in these microscopic, spectroscopic, thermometric and chemical times, nevertheless, the treatises, as far as they reach, will always remain as true expressions of the teachings of nature as far as any of the necessarily imperfect labors of man can be such.

POSITION OF LOUIS IN MEDICAL HISTORY.

Where in the history of medicine shall we place Louis? It has always seemed to me that we should place him, in his influence on his own and on subsequent generations, by the side of John Hunter, Morgagni, and men of that stamp. Not that we could class his intellect with that of John Hunter, although with Morgagni he would be nearly if not quite on a par. But John Hunter, in his far-seeing genius, so much transcended any other man we have had in medicine for centuries, that it would be impossible to rank Louis with him. Nevertheless these three were not only animated by, but were fairly "possessed," as it were, by the spirit of inquiry into the secrets of nature in medical science. It is the same impulse which urged Faraday, and which has urged all really great scientific investigators, and which will continue to do so till the end of time. And these three great men of our profession were "possessed" by this spirit in an eminent degree. Louis finely describes it in the autograph which he gave to the editor of the Panthéon already alluded to.

At his last interview with one of his pupils, Louis, when giving him his portrait and autograph, slowly read over the words as if they were his last parting gift. It runs thus: "There is something rarer than the spirit of discernment, it is the need of truth; that state of the soul which does not allow us to stop in any scientific labors at whatever is only probable, but compels us to continue our researches until we have arrived at evidence."

This principle, underlying as it does the works of Hunter, Morgagni and Louis and others of that class of mind, allies them to one another, and has ever made their influence great with their associates, and still greater in a wider field with posterity. Not that the persons who may be so influenced will always recognize the benign power that sways them, but they will be swayed notwithstanding. That this is true is evident in the present power of John Hunter; but who of the many who allude to him now read his many works? His powerful mind has indelibly impressed itself on the ages, because it was in its operations consonant with the operations of nature, which are ever enduring, ever widening. Morgagni, Hunter and Louis, were all a protest, each in his own day and within his own intellectual limits, against any pretence to unravel the secrets of nature by speculation merely. They all claimed that hard labor on the facts of nature alone bring out the truth.

Andral, Chomel, Louis! What a noble triumvirate! How friendly were these three men; how similar in their undercurrents of thought; how dissimilar in their modes of expressing those thoughts. Andral as professor at the Ecole de Médecine was lecturing on general pathology; Chomel gave clinical lectures at La Charité; Louis held his "conferences" at La Pitié. Andral was the rising sun. He was rather below the medium size; he had a young and a fine intelligent face; his head was covered with an ample supply of dark hair. The moment he commenced speaking there fell over the vast hall of the Ecole de Médecine a silence, which was preserved with the greatest decorum and attention to the very end of the lecture. Whatever subject Andral undertook to speak of, he always viewed it in its widest extent, and really ennobled it in our eyes. His learning seemed illimitable, and he would gather all of it before him to illustrate his theme. He was nevertheless a great dealer in facts, which with his broad generalizations he was wont to classify when inferior men were unable to see their relations. His tendencies were, if I may so speak, centrifugal, as Louis' were centripetal. That is, Andral, while obeying a central impulse to rest on facts, would with his learning and imagination unite these facts from the opposite boundary of medical experience, and bind them into one vast whole. All this was done in the most polished language, with an easy, frank delivery, and perfect self-possession. His sonorous voice rang through the amphitheatre, and he kept the attention even of the most frivolous of the students riveted to the subject. He felt entirely at home among them, and he governed them with his word, and a nod. He was the demigod of the hour and place.

Next to Andral in this medical triumvirate of the Parisian Medical School of forty years ago, appeared in the eyes of most students the well beloved and respected Chomel. He reminded me, in his manners to his patients and to his pupils, and by his clear method of lecturing on cases, and his skill in diagnosis, more of the late Dr. James Jackson than of any other man, French, American or English, I ever saw. He was always the genial, easy speaking, well informed, truth-loving teacher and gentleman. His intelligent smile was like a sunbeam to us. Words fell from his lips like the natural and melodious notes of a bird. His eloquent and truthful lectures won all hearts, as much by the grace and kindly manner with which they were delivered as by the medical learning they showed. His allusions to the laws, laid down by his great friend Louis, won praise from all.

And last but not least of the three comes Louis. He was of tall, compact form, and with features rather severe; grave in manner to those who knew him not, but full of loving tenderness to those to whom he gave his heart. With his patients he had a *brusque* manner and a quick jerking kind of utterance, and often I doubt not appeared rough when propounding his searching questions. His voice lacked the clear tones of Andral, the gentle, winning softness that marked Chomel in his general intercourse with the students. In fact, it has seemed to some that until age and grief had mellowed Louis' whole nature, he lacked toward the multitude that fine delicacy of voice and manner which his two friends possessed in a high degree.

What shall we say of Louis as a lecturer? He was not an easy speaker. He lacked power and grace of delivery. In fact, in order to be able comfortably to follow him, one needed to feel the value of the method he had pursued in his studies, and to have a faith in his love of truth, coupled with a belief that from these two facts the professor would be better able than any mere theorist to reveal to us the laws of disease, so far as they were known. But he was ill at ease in the teacher's chair. He would talk fluently at the bedside of a patient, and give out the brilliant results of his years of patient labor while in Chomel's ward, but he trembled and was awkward with his notes when lecturing at his, so called, "conferences." His hand at times shook so much that we felt a severe pity for him, as in his "numerical" way he laid down his propositions. The consequence of all this was that Louis always had few followers. He was "*dry*," so the students said. He had none of the glowing and delightful manner of Chomel, nor of the eloquence and comprehensive views of Andral, whose simple presence in the vast amphitheatre of the School of Medicine was always the signal for wild enthusiasm on the part of the two or three thousand students collected the reto hear him lecture. We found nothing of all this in the simple room at La Pitié where Louis spoke only to a few.

Late in life Louis retired from La Pitié, the scene of his chief labors as a teacher, and had an ample consultation practice. His early hard study and self-denial were having a full pecuniary reward. He had married the sister of the eminent republican refugee, Victor Hugo. She was a most estimable and intelligent lady, who gave that gracefulness to his home which, if he had remained a bachelor, it would perhaps have wanted. They had one son; he was the idol of his parents, and fully worthy of them. He had grown up to be a youth of great promise when the seeds of consumption began to manifest themselves. In vain did the father try to ward off the blow by travel and change of climate. Death early came, and that blow for a time prostrated Louis; but it left no sting of petty complaints behind it. Believing as he did in the governance of this world by almighty goodness as well as power, Louis arose chastened and subdued as regards many things, but with a heart warmer than ever to all the advanced learning of his juniors in the profession, and to all the amenities of friendly life. I had met him as a teacher in 1832, 3 and 4. It was my good fortune to meet him twice again, viz.: in 1859, and again, for the last time, in 1867. He was then 80 years old, and the beau ideal of a noble old man perfectly preserved intellectually and physically. He invited me to dine with him at his country seat at the Bois de Boulogne. There I met his family and a few others in the most friendly unconventional way. Fauvel, recently returned from his Eastern expedition, which he had undertaken to study cholera, and Woillez, were there. Louis had the same tall erect form and commanding head as in previous days; the same quick mode of utterance, and merry twinkle of the eye. It was pleasant to see the affectionate manner with which he greeted his friends and kissed the cheek of his fair niece, who with her husband was of the party. Louis was the centre of all, and easily presided over all. In fact he gently checked the inconsiderate language of one young Imperialist, who felt called upon during the conversation at dinner repeatedly to utter words of dislike, not to say contempt for all republics, and so pointed was he, on one occasion, toward America, that I felt compelled promptly to reply. Louis came to my assistance with all the seeming vigor of youth, and gently threw oil on the troubled waters. Forty years seemed not to have added a feather's weight to him. His hair was silvered and longer than formerly; but as he talked of modern work in medicine and regretted the going out of the great lights of Chomel, who, we believe, was dead, and of Andral, who was wholly absorbed in other things than medicine, he seemed filled with his old fire, but, superadded to it, and giving a grace and dignity to him which I had never seen before, were the combined influences of age genially borne, and the blessed memory of a great sorrow. Truly whether we consider Louis as a master in medicine or as a man, we find most admirable features. One can hardly over-estimate his many manly traits of character. Such a person does not arise more than once in a century. Thrice happy are they whose good fortune led them to know, to love, and to listen to him.

Medical Miscellany.

Dr. Henry W. Williams, of this city, has just returned from Europe, having passed the interval, since the session of the Ophthalmological Congress, in travel and in the renewal of former professional associations abroad.

A new edition (the third) of the Philadelphia Medical Register and Directory will soon be issued.

Non Humanized Vaccine Virus.—Members of the profession will note the suggestion made by Dr. Folsom, in our advertising columns, to supply them with reliable virus.

M. Sedillot has been elected a member of the Academy of Sciences in Paris, in the place made vacant by the death of M. Laugier.

Memorial to Harvey.—A movement is on foot in England to cause the erection of a monumental statue in bronze to the memory of William Harvey, at Folkestone, his native place.

Prof. Edward Parrish of the Philadelphia College of Pharmacy, and Dr. George Pepper, accoucheur to the Philadelphia Hospital, have recently died in that city.

The Class in Medical Instruction, which was conducted last winter with special reference to the competitive examination for the Hospital interne appointments, will be renewed the present season. Dr. G. W. Gay, No. 647 Tremont St., or Dr. McCollom, No. 622 Tremont St., will give any desired information concerning the course.

The Chicago Medical College opened its regular annual course of instruction for 1872–3, on Tuesday evening, October 1st, in the amphitheatre of the College. The term opened with a decided increase in the number of students over previous years, and with important additional facilities for instruction, both clinical and didactic.

Rush Medical College also commenced its annual session on Wednesday evening, October 2d.

Although the great fire of October 9, 1871, resulted in changing the location of some of the colleges, it has neither extinguished nor seriously crippled any of them; and Chicago to-day, with its numerous and well manned hospitals and dispensaries, is said to afford as complete and well arranged facilities for medical students to acquire a thorough knowledge of every department of medical science and art, as any city in our country.

Use of Antiseptics in Egyptian Surgery.—A correspondent of the *Medical Times* asserts that the first instance of the use of an antiseptic as such in surgery was the case of St. Syntellectica, an Egyptian Christian lady of the second century, of whom an account is preserved in the "Lives of the Saints," and whose "day" is observed in January. This lady, whose life was devoted to the good of the poor, died of cancer of the face, which was attended with so odious a smell that she used to have the ulcer bathed with the *liquid which was used to mummify dead bodies*, in order that those about her might not suffer from it.

Mounting of Red Blood-Corpuscles.—At a recent meeting of the Biological and Microscopical Section of the Academy of Natural Sciences Philadelphia, Dr. J. G. Richardson remarked that some specimens of human red blood-corpuscles, which he had mounted more than six months ago in a saturated solution of acetate of potash, were still in a good state of preservation, and thought this medium, in his experience, was much more satisfactory than glycerine as a preservative agent.

Report of Committee of the Improvement Society on the alleged Dangers from Ether, 1861.—Gentlemen having copies of the above pamphlet, which they do not care to preserve, will confer a favor by forwarding them to Dr. B. Joy Jeffries. Dr. J. is desirous of sending a number of copies to England, in order to give members of profession there a more thorough knowledge of the claims which ether presents as a *safe* anæsthetic.

Pamphlets Received.—Transactions of the Twenty-second Anniversary Meeting of the Illinois State Medical Society, Chicago, 1872. Pp. 228.—The Old Farmer's Almanac for 1873, by Robert B. Thomas. Boston: Brewer & Tileston. Pp. 48.

Deaths in fifteen Cities and Towns of Massachusetts, for the week ending Oct. 12, 1872.

Cities and Towns.	*No. of Deaths.*
Boston	153
Charlestown	11
Worcester	24
Lowell	18
Chelsea	9
Cambridge	23
Salem	11
Lawrence	14
Lynn	15
Fitchburg	3
Taunton	12
Newburyport	3
Somerville	8
Haverhill	5
Holyoke	4
	313

Prevalent Diseases.

Consumption	50
Typhoid Fever	25
Cholera Infantum	23

Boston reports twenty-two deaths from smallpox.

George Derby, M.D.,
Secretary of State Board of Health.

Deaths in Boston for the week ending Saturday, October 19th, 163. Males, 79; females, 84. Accident, 2—apoplexy, 2—anæmia, 1—inflammation of the bowels, 5—bronchitis, 3—inflammation of the brain, 2—congestion of the brain, 1—disease of the brain, 2—cancer, 1—cholera infantum, 8—consumption, 25—convulsions, 5—croup, 1—debility, 2—diarrhœa, 1—dropsy of brain, 3—drowned, 1—dysentery, 1—scarlet fever, 1—typhoid fever, 8—gangrene, 1—gastritis, 2—disease of the heart, 7—hæmorrhage, 2—homicide, 2—disease of the kidneys, 2—disease of the liver, 2—congestion of the lungs, 2—inflammation of the lungs, 6—marasmus, 10—old age, 5—paralysis, 2—purpura, 1—premature birth, 4—peritonitis, 1—scalded, 1—smallpox, 28—disease of spine, 1—teething, 1—ulcers, 1—unknown, 6.

Under 5 years of age, 60—between 5 and 20 years, 17—between 20 and 40 years, 45—between 40 and 60 years, 18—above 60 years, 23. Born in the United States, 108—Ireland, 31—other places, 24.

THE

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Original Communications.

AGORAPHOBIA.

By S. G. Webber, M.D. Harv.

The following case was seen in 1868, and attracted my attention by its peculiar symptoms. Lately, an article by Prof. C. Westphal in the *Archiv fur Psychiatrie und Nervenkrankheiten*, iii. 1, has recalled it to my mind, and a partial resemblance of symptoms will be seen between it and the cases Prof. Westphal relates.

Edward T., æt. 42, seaman, soldier, and for three years a laborer, was seen Aug. 29th, 1868. His parents died at an advanced age; his mother was of rather a nervous temperament; a niece, not, he thinks, from his branch of the family, is insane; an uncle is said to be insane. A brother and sister died of diseases unknown to the patient. He practised masturbation till seven years previous to my seeing him; had had gonorrhœa and syphilis and had been salivated. Had been a hard drinker. Twenty-two years since, he had two or three attacks of convulsions; he has had a mahogany-colored skin eruption, confined to the right side. While in the army, had intermittent fever. Was married two years since.

His present trouble began about two years ago, with swelling of the abdomen, stoppage of water, and stiffness of left leg after sitting on a damp log in a steamer's hold. Afterwards, while drunk, he sat on a doorstep. Now he passes but little water on rising; about nine o'clock, however, it comes with a rush, and without warning. His left leg is still stiff; there is pain in the shin-bone, worse in the daytime; at night, there are "startings" in the leg. The pain is not always severe, but is rather a sense of tickling. When not drinking, he is sometimes jovial and at other times melancholy.

During the last fifteen years, he has had dizziness on stooping, and since last May this symptom has been worse. He cannot cross a street with comfort, sometimes it is not possible for him to cross; he has more confidence on the sidewalk; sometimes, when he gets started, he finds it hard to stop, and then he must catch hold of something to help him stop. He has a dread of crossing a bridge. Sometimes he can cross when he nerves himself to it; but sometimes after getting half across he has to turn around and go back. He seems afraid he shall jump off. If the bridge has a high, close railing he does not have so strong a dread. He cannot cross the water on a plank, but he likes to bathe. He cannot look out of a window when alone. If, when walking, he sees men at work on a steeple or any building, he cannot look at them, and he shakes all over and has a horror at hearing of or seeing an accident; he has an oppressed feeling in the epigastrium, which is relieved by starting and taking a long breath. He cannot handle rats or mice *on any condition whatever*. In walking, he is rather inclined to bear to the left, though this is not very marked. He is never inclined to go backwards. To look long at an object produces pain, and on intently looking, the object changes its shape. His memory, he thinks, is somewhat affected.

About two weeks since, he had neuralgic pains in his head and face on the left side, and in his shoulder. There is no paralysis of the cranial nerves. In the morning, he has a great weight in his stomach, and flatulence, especially if he lies on his left side.

His left leg and foot, especially the knee, are sometimes cold, and he has formication on that side from his knee to the axilla and a prickling sensation in the side; sometimes the left side is hot, and he sweats much on that side. The left side was always the weaker side. He has a numbness at the sacrum and tenderness over the coccyx, felt first after riding a horse. The left foot swells at times and seems to "explode." There is a tight feeling in the head, as if it would burst open, and the back of his head is heavy, at other times this feeling is in his forehead.

He stood steadily with his eyes shut, and had no difficulty in walking with them shut.

His digestion was poor; bowels were rather sluggish. He had a slight cough, and there was a little dulness at the top of the left lung, with harsh respiratory sounds. The heart-sounds were good.

The peculiar symptom that the patient described, inability to cross a street, has led Dr. Westphal to give the name *agoraphobia* to the affection. I regret that I did not question the patient more closely in regard to this peculiarity. In Dr. Westphal's cases, the patients could cross the street if behind a wagon, or if in company with a friend, or if the mind happened to be so preoccupied as not to notice the locality. If, by great exertion of will, they got half across a public square, it was not possible for them to finish crossing, but they were obliged to turn back. This was mentioned by Mr. T. in regard to crossing a bridge, and he said the same about crossing a wide street. The cause of this inability seemed to be an indefinable dread which could not be expressed in language.

After relating the histories of his three patients, Westphal remarks that they agree in regard to the difficulty or impossibility of crossing an open square or wide street; but it is difficult to form a conclusion in regard to the nature of the affection. All the patients stated that there was absolutely no foundation for their distress; it is a strange sensation suddenly and spontaneously arising, so soon as it may be necessary to cross a square; indeed, so soon as on approaching one, the idea of crossing is formed. At the same time with the distress, not causing it, but rather caused by the same circumstances and seemingly forming part of the feeling of distress, springs up the thought that he cannot get across the square and the delusion that it is immensely wide, and the thought that something may hit him. The patients can only state the circumstances under which the sensation arises and cannot explain it further. So they cannot explain why it is that having succeeded in reaching the middle of a square they can more easily return than finish the crossing. A similar feeling may be caused by walking along an unbroken front of houses or in an unfrequented and strange street. The sensation was not vertigo or dizziness.

Westphal refers to a case reported by Benedict and called by him "Platzschwindel," and thought by him to be caused by disturbance in the convergent power of the eyes. Westphal, from the examination of his cases, does not agree with this view; in his cases only one had a slight insufficiency of the internal rectus, the other two were normal.

The case now reported exhibited considerable disturbance of the nervous system, and there was a history of convulsions twenty-two years previous. One of Westphal's cases had convulsions in childhood, another had epileptic attacks, and there were in his cases other symptoms due to some change in the nervous system.

The agoraphobia, Westphal thinks, is clearly of cerebral origin, not epileptic nor epileptoid; has as little analogy with normal psychological phenomena and is as little to be explained by them as other pathological conditions of the feelings, affections, ideas and impulses. He does not undertake to settle the nature of the affection or symptom, or to decide as to the peculiar lesion giving rise to it, but recommends the careful analysis of such phenomena in order to arrive at a decision as to their nature and cause.

One case has been brought to my notice, reported in the *Cincinnati Clinic*, vol. ii., No. 6, 1872, the record being drawn up by the sufferer himself, a medical man. There were perhaps fewer symptoms referable to the nervous system, yet mention is made of palpitations and rigors sometimes culminating in actual shakings, and occasionally accompanied with severe neuralgic pain in the back, side and shoulders, followed by heat and thirst when the sufferer tried to overcome his trouble and permitted himself to be alone.

105 *Shawmut Av., Boston, Sept.*, 1872.

UTERINE DISPLACEMENT.

By L. E. Wells, M.D.

On the 1st inst., I was consulted by Mrs. J., aged 37, and the mother of three children. She informed me that about the 12th of last December, she suffered from a miscarriage, having advanced about three months on her fourth gestation. At that time, she became very much reduced by flowing. Since then there has been constant tenderness, and at times severe pain in all the region of the womb, but more especially in the vicinity of the left ovary. There has also been, for the most of the time, a discharge of whites. After hearing her history of the case, I made a vaginal examination, which revealed to me the fact of the existence of acute tenderness throughout all that portion of the sexual organs which is susceptible to an examination by the touch. But what was of the chief interest to me was this. The uterus had been raised from its ordinary position and rested directly upon the summit of the bladder, and this organ was depressed so that the cervix uteri could be felt low down, near the base of the former, and between the womb and finger were the walls of the bladder.

This is to me a singular case, and in all my experience as a gynecologist, I have never met with anything like it.

Therefore, two questions arise in my mind pertinent to this case. First, will it be expedient to try to bring back to its natural position, the displaced womb? Second, if it be expedient to do this, what will be the proper course to pursue?

Phenix, R. I., Aug. 17, 1872.

DISLOCATION OF THE LOWER END OF THE ULNA FORWARDS.

By John H. Gilman, M.D. Harv.

This rare accident occurred to M. B. D., July 23, 1872, while engaged in fixing a loom in the boot mill of this city. The left forearm, being between the spokes of a wheel when the loom was set in motion, was violently turned outwards. On examination, the hand was found in a state of fixed supination; on looking at the back of the wrist, there was a marked depression of the ulnar portion, and an unusual prominence of the corresponding portion on the frontal aspect of the wrist. Reduction was effected by grasping the hand and making extension (counter-extension being made at the elbow), slightly pronating the hand and raising the bone into place with the right hand.

Lowell, Aug. 6, 1872.

Two Hospitals for Englishmen exist in Paris. The first, Galignani's Hospital for the English and Americans, was founded in 1865 by Anthony and William Galignani, who endowed it with a gift of half a million of francs. This hospital is situated at Neuilly, and contains twenty beds for each sex. Secondly, Sir Richard Wallace has founded an hospital of twenty-four beds near the Porte Maillot. It is nearly always full, the Parisian jockey furnishing a considerable contingent of surgical cases.

Progress in Medicine.

REPORT ON ELECTRO-THERAPEUTICS.

By D. F. Lincoln, M.D., Boston.

A New Phenomenon of Reaction.—Eulenburg (*Berliner Klin. Wochenschr.*, 1872). The "reaction" of a motor nerve, which occurs during the opening and closure of the galvanic current, is well known. One pole is placed on the nerve to be tested, and the other on an "indifferent" point, and muscular contractions of certain intensity are produced by making or breaking the current. If, now, the second pole be placed, not upon an indifferent point—that is, one comparatively free of nerves—but upon *another nerve* belonging to the same trunk, plexus, or segment of the cord, the reaction of the nerve under the first pole will be much greater than before. This experiment has been repeated by Eulenburg many times upon healthy men.

Galvanization of the Head.—Hitzig (*Berliner Klin. Wochenschr.*, 30, 1872). This is chiefly effected by means of his "unpolarizable electrodes," applied to the spot between the lobe of the ear and the mastoid process, on each side of the head. Six cells (Daniell) cause giddiness and uncertainty as to position (Verhalten) of body; these sensations commence directly upon closure, and last for a short time after opening the current. With a stronger current, external objects appear to move. With a still stronger, the person leans over towards the anode; at the same time, his eyes execute certain nystagmoid movements, jerking quickly towards the cathode, returning slowly to equilibrium, and again jerking; besides which there is usually a rotation movement in the same direction. When this current is opened, these phenomena cease, the body leans towards the cathode, and external objects seem to move in an opposite direction. There are many variations, in different individuals, both in degree and kind.

In explaining these phenomena the following considerations are offered. The direction of the movements obviously depends upon that of the current. The sagittal direction, from occiput to forehead, is not adapted to produce the symptoms; and, obviously, when the sagittal direction is employed, all the pairs of organs within the brain are *symmetrically* affected, the right hemisphere, the right corpus striatum are under conditions similar to the left hemisphere, or corpus striatum, &c. But if the current be passed transversely through the brain, then the left half of each pair of organs is under the influence of one pole—the pole, namely, which is applied to the left auriculo-mastoid depression; and the right half is under that of the opposite pole. Now the organ for the perception of muscular sensation is, doubtless, an organ with a right and a left half, corresponding to the two sides of the body, and the effect of electrotonus in heightening the susceptibility of one side, and diminishing that of the other, is the "falsification of the muscular sense," with a disturbance of the true equilibrium of the two lateral halves of the body. Hence, an unconscious but voluntary movement of one-half of the body, to restore the (imaginarily) lost balance, the effect of which is an actual loss of balance. *Giddiness* depends upon these processes, and also upon certain optical impressions which occur in consequence of them.

Noë's Thermo-Electric Pile.—Dr. Schwanda (*Wiener Med. Presse,* 29 and 31, 1872). This instrument consists of twenty pairs of metal, composed of strips of copper, and an alloy of which the composition is not stated. It is conveniently portable, being in the form of a cylinder, about 4½ inches in diameter, and the same in height; its weight is twenty ounces. When it is connected with a faradic coil, and the spirit-lamp is lighted, half a minute is required before it sets the machine working. For this purpose, its value is stated by Schwanda as equivalent to five Leclanché elements, or one Bunsen; or as somewhat superior to the two zinc and chloride of silver elements of Gaiffe's battery. Noë says that five years' use has not impaired the activity of his instruments. Its electro-motive force equals from 1·24 to 1·36 Jacobi-Siemen's units, that of a Daniell's cell being = 12. The essential resistance = 0·05. Its internal resistance does not increase with the increase of temperature, and of electro-motive force. If this instrument should prove durable, it would be a very handy thing for office-practice; it is said to be very cheap, as compared with the instruments made here.

A peculiar form of Electro-Cautery.—Frommhold (*Wiener Med. Presse,* 28, 1872). In certain obstinate cases of neuralgia of the leg, especially those affecting the peroneus and tibialis nerves, in which the galvanic and faradic currents have failed, the negative pole, armed with a metallic electrode an inch square, is placed on the peripheral end of the nerve affected, and a current is passed of strength sufficient to produce a few little round spots of destruction under the electrode. This process requires five or six minutes, and is painful, though not violently so. The necrosed spots take from three to five weeks to heal. The application is made daily, each time a little higher up, till the capitulum fibulæ is reached. Twenty or twenty-five sessions have cured neuralgia of some years' standing. The positive pole is to be put upon the point of origin of the sciatic; destruction of cutis need not occur under its influence.

Basedow's Disease.—Dr. Franz Chvostek (*Wiener Med. Presse,* 23, 27, 32, 1872). The cases mentioned by Chvostek are very interesting, and present decided evidence of the value of the constant current. The treatment consisted mainly in galvanizing the cervical sympathetic and the cord in the ascending direction. Fuller notice is deferred, as the series of cases is "to be continued."

Weak Galvanic Currents.—Léon le Fort (*Gaz. Hebd.* 17 and 19, 1872), Groh, of Olmütz (*Die Elektrolyse in der Chirurgie,* Vienna, 1871). The current in question is derived from three or four Callau-Trouvé elements, which are a sort of Daniell's cell without diaphragm; in fact, a "gravity battery." It is allowed to act for hours or days uninterruptedly. It has been found beneficial in paralysis of the hand and forearm, following contusion of the wrist; in contraction and atrophy of the calves, and in paralysis and atrophy of one deltoid.

Groh has cured myxosarcoma of the leg by the almost uninterrupted application, during fifteen days and nights, of the current from four Daniell's elements. He considers the results of the method very remarkable. An osteosarcoma of the femur was also cured by this treatment, which occasions very little pain or trouble. Several fine needles are used.

Vasomotor Neurosis.—Fr. Chvostek (*Oesterr. Ztschr. f. Prakt. Heilkde.,* 3 and 4, 1872). An officer, aged 27, had rheumatism of several joints, on recovery from which he remained subject to the following peculiar affection, viz.: Every evening, red spots, accompanied with a burning sensation, appeared on the wrists and fingers, followed in half an hour by a slight but painful swelling of the joints in these members, and, later in the night, by sweating.

Fever was not present. By daytime, these symptoms had disappeared. The pulse was permanently accelerated, the thyroid was enlarged, and the entire nervous system was in a state of heightened irritability, which became most manifest when the third and fourth cervical vertebræ were electrized, and when pressure was made upon the superior cervical ganglion of the sympathetic. Quinia was tried without success. Galvanization of the cervical sympathetic and of the spinal cord was practised for several months, and great improvement was obtained.

Writers' Cramp.—Dr. Poore, of Charing Cross Hospital *(Practitioner,* September, 1872). The case occurred in a young and healthy man, who used to write about nine hours every day in a counting house. The disease had lasted two years when Dr. Poore saw him; he had been treated by "galvanism," friction, douches, sea-bathing, voyages, &c., with very little benefit. The right arm and shoulder were the seat of an aggravated chorea, which was increased when the patient's attention was called to it. There was no paralysis or wasting, and no anomaly of sensation. The author believed he saw an analogy to stammering, and determined to employ the treatment found curative in the latter affection, namely, regular orderly drill of the muscles. This was impossible to the unaided will, by reason of the rigidity of some muscles and the lawless action of others. A current, commencing with twenty-three cells (Weiss), was therefore passed through the belly of each affected muscle in turn; and, while in the state of consequent relaxation, each one was exercised in light gymnastics. Rest, and bromide of potassium, formed part of the treatment; but the improvement in writing was manifestly, and in a most extraordinary manner, connected with the use of the battery, as above stated. After daily treatment for six months, he now writes with the greatest ease, though not with his former neatness.

Strychnia as an Adjuvant to Galvanic Treatment.—Richard Barwell, F.R.C.S. (*Lancet,* July 6, 1872). Barwell uses a strong solution of strychnia—viz., two per cent.—for injection into the affected muscles; as to the quantity, he says that he could fearlessly begin by giving even children five times the dose hitherto considered as the maximum, namely, five half-minims, or one-twentieth of a grain. This plan, pursued every two or three days, is a powerful adjuvant to the galvanic treatment, and is also applicable as a preparation for the latter in cases where the muscles do not respond at all to galvanism. The internal administration of strychnia does not appear to act in the same manner. Success has been obtained in cases of facial paralysis, paralysis of the wrist (independent of syphilis or saturnism), and others, after months of galvanism, and the internal use of strychnine and other remedies had failed.

Extra-uterine Fœtation.—Dr. J. G. Allen (*Transactions of the Philadelphia Obstetrical Society,* in *Amer. Jour. of Obstetrics,* May, 1872). Three cases are reported, in two of which the current from an ordinary electro-magnetic machine was applied, with the result of stopping the growth of the tumors. The diagnosis was confirmed, in one case, by Drs. Agnew and G. Pepper, the latter of whom made repeated examinations, and finally discovered the existence of ballottement. The application of the current was made, in this instance, about eight times; the poles were placed on the projecting portions, in the vagina; at the third application, the woman "felt a motion as of something turning over in the abdomen." This case occurred in 1869, and the patient is at present in good health.

[If we grant the correctness of this diagnosis, it seems not too much to concede that fœtal development may have been arrested at the tenth week by the direct application of a current described as "violent."]

Affections of the Skin.—Onimus (in *Centralblatt f. d. Med. Wiss.,* 32, 1872), G. M. Beard, M.D. (*Amer. Jour. of Syphil. and Dermatology,* Jan., 1872). Onimus describes certain affections brought on by the application of the continued current. They are not caused by the undue strength of the latter, or by any unusual delicacy of the integument; they are unfavorable symptoms, in respect to prognosis. They consist in grayish, depressed spots, which appear soon after the electrodes are applied, and soon turn to blisters, which burst and leave a blackish base. They are stated to be observed in "some cases of disease of the nervous centres or peripheral nerves." [The phenomena in question may be produced in healthy persons; their prognostic value, therefore, depends upon the *undue facility* of their production. L.]

Beard has treated a large number of cases of skin disease at the Demilt Dispensary, New York. He considers that the results prove the high value of electricity in many cases, which under ordinary treatment are obstinate or incurable. The cures are at least as permanent as those obtained by the accepted methods; and the treatment may succeed after the ordinary methods have partially or entirely failed. Galvanism is the best form. In *eczema*, there is nearly always direct relief from distressing pain, and ultimate cure. The negative pole is applied to the diseased surface; the negative, also, is more useful than the positive in *psoriasis*, though in the latter both electrodes are frequently used at once; the disease is curable, wholly or in part, probably in a majority of cases. Of *pityriasis* one case seems to have been benefited. The itching of *prurigo* is often completely relieved in a few minutes by dry or moist faradization; which, "when perseveringly used, may cure." *Acne* has been made worse, in one case, by galvanism. Lupus, condylomata, and tubercula, are mentioned as suitable for treatment by electrolysis (with needles). Usually the positive pole is planted upon the region of the principal nerve supplying the part, and the negative is held to the diseased skin or made to glide slowly over its surface. When the disease is pretty general, "an electrode is sometimes put on each limb," to allow the current to run through the body. Broad electrodes, from two to four inches in diameter, are preferred.

White Atrophy of the Optic Disc.—R. J. Pye-Smith (*Brit. Med. Jour.*, May 18, 1872), Donald Fraser, M.D. (*Glasgow Med. Jour.*, Feb., 1872).—Mr. Pye-Smith gives six cases in which the affection was well marked, and which were treated by the galvanic current from five to twenty-three times, with the result of decided (but slight) improvement in two cases, doubtful improvement in two, no improvement in one, and *harm* in one. The latter case was complicated with the results of syphilitic inflammation. As to the mode of administration, it was rather vigorous than otherwise; from ten to twenty Daniell's cells were used, the negative pole was applied behind the ear and the positive upon the closed eye, and the current was alternately admitted and shut off, at intervals of eight or ten seconds, for about a minute. Mr. Kiddle has treated twelve other cases by the galvanic current in a similar manner, but the results are entirely negative.

Dr. Fraser's case is very carefully reported, and deserves fuller mention than we can give it. The subject was a weaver, aged 59, whose eyes had been failing for five years, owing to over-taxing of the sight. The ophthalmoscope showed that the outer two-thirds of the optic disc in both eyes were partly white and glistening, and the inner third hyperæmic; the retinal veins enlarged and tortuous, and the arteries diminished in number and calibre; alongside some of the vessels were to be seen the white lines said to be characteristic of neuritis descendens. He read slowly, and with effort, No. 20 of Snellen's test-types, at four inches with the right eye, and eight with the left. Bichloride of mercury, with iodide of potassium, was used for a month; sight very little better. Then, a current from six Stöhrer cells was passed through his temples for about twenty seconds. On testing his sight, before and after this operation, it was found that he could read 20 Snellen at 7½ and 9½ inches respectively; an improvement of two inches within as many minutes. The current was applied daily for a month, then less often, in all three months, with a steady gain, so that at the end of this period he could read 5½ Snellen as easily as he once read No. 20. The optic disk still presented a marked condition of atrophy, but there was an improvement, which was most marked in the case of the retinal circulation, the arteries being larger and the veins smaller and much less tortuous. The number of cells employed was limited to *six*, and the time never exceeded thirty seconds. The points of application were the temples—the long axis of the head—the forehead and tongue—the cervical sympathetic; but the results never seemed so good from the latter method, though *eight* cells were used.

Very similar beneficial results, from the subcutaneous injection of strychnia, have been noted by Nagel, of Tübingen, Werner, of Sangerhausen, and Chisolm, of Baltimore. The same is true in some cases of peripheral atrophic paralysis of muscle. The coincidence ought to throw light upon the mode of action both of galvanism and of strychnia.

Electrolysis of Tumors.—Geo. W. Callender, F.R.S. (*Brit. Med. Jour.*, Feb. 10, 1872), J. Althaus, M.D., F.R.C.P. (*Ibid.*, March 16, 1872), M. Benedikt (*Wiener Med. Presse*, xii. 53), Prof. Billroth (*Berliner Klin. Wochenschr.*, 28, 1872), Paul Bruns, Asst. in the Surg. Clinic at Würzburg (*Ibid.* 27, 28, 1872), Lawson Tait (*Trans. of Clin. Soc.*, London, vol. iv., 1872), Girard (*Centralblatt*, July 6, 1872), C. Hilton Fagge, M.D., F.R.C.P., and Arthur E. Durham, F.R.C.S. (*Med. Chir. Trans.*, 1871), Wm. R. Whitehead, M.D. (*Am. Jour. Med. Sci.*, July, 1872), T. Holmes, F.R.C.S. (*Lectures delivered* before the R.C.S.; in *Lancet* and other papers). Callender describes three cases of *Recurrent Fibroid*, in two of which electrolysis by means of needles proved of no decided value. In a third case, excision was practised, but "before the large wound from the operation had closed, one or two isolated nodules, growing up in the granular surface," appeared; these were transfixed by a needle, connected with the positive pole of twelve cells, the negative being applied to their surface; after two applications, "the entire mass, about the size of a marble, seemed to melt away and disappear." He considers that the current may be very useful in such *secondary* and as it were subsidiary operations. He was struck with the thorough manner in which the sloughing of the growth took place in the immediate course of the electric current; this was less marked around the negative than the positive pole.

Althaus considers that the failure to obtain a radical cure was due, in these instances, to the insufficient strength and duration of the current. He quotes a successful case by Ehrenstein.

Benedikt, also, lays stress upon the necessity of prolonging and intensifying the application in the case of cancer. He narcotizes the patient, or injects morphia, and the operation is continued for an hour or longer. He thinks the application of electricity may actually accelerate the growth of such tumors, an opinion shared by other observers. Billroth, for instance, found that in soft tumors, especially medullary lymphomata, the constant current sometimes did harm by inducing inflammation; an increase in the vascularization and the rate of growth, and consequently, a more rapid softening, were the consequences of this. He, however, appears not to have used *needles*; and the strength of the current is not specified.

Bruns gives a valuable analysis of the reported cases of *Naso-pharyngeal Polypus*, nine in number, treated by electrolysis. Seven resulted in complete cure. One patient died from intercurrent typhus, and one is still under treatment. Of those cases kept under observation, the cure has remained permanent in every instance, the periods varying from five months to two years, while in three cases relapses had previously occurred. In two cases, there was no other possible mode of operation, and the life of the patient was in serious danger.

The following general conclusions are offered by Bruns. He admits that they are still open to revision, the whole subject being by no means settled.

Indications for the Operation.—These are, at present, as little established for this as for most other forms of tumors. An unsuccessful case, by the author, is reported in Nos. 12 and 13 of the same journal for 1872; here, thirty applications had been made. The present series of cases would justify, as far as they go, the assumption that the ordinary fibrous character of the structure is a circumstance predisposing to the success of the operation; for in all of the successful cases in which the character is stated, the structure was purely fibrous. Two of the nine are reported from the Tübingen clinic; in the unsuccessful one, the structure was in part fibrous, in part rich in cells and approaching the character of a sarcoma. Perhaps we may infer that the current employed was too weak to destroy a form of tumor which was in a condition of active growth; besides, the immediate neighborhood of the brain imposed a limit to the strength which it was deemed safe to use.

It is important to be able to increase the strength of the current at will, after introducing the needles. The negative needle alone, or both the positive and the negative, may be inserted. A glass or rubber tube is of use as an insulator; and when the needle has to be pushed through the soft palate, its shank ought to be insulated by a coating of varnish. The positive needle may be made of zinc, in which case the caustic action of chloride of zinc is added to the ordinary electrolytic effect. Tripier's fear that the basis of the skull may be attacked by the electrolytic process, is not justified, for it is strictly localized around the needles. Tripier's plate-shaped electrodes are dangerous, inconvenient, and less active than the needle.

Too powerful a current may certainly affect the brain; or may cause temporary increase in the size of the tumor, with partial gangrene of its substance, infiltration of the adjacent lymphatic glands, and fever. Groh's views regarding the use of very mild currents (cited above) are quoted with a certain assent; and the author adds, that one of his cases was cured by one hundred and thirty sessions, the average strength of the current being eight cells of Frommhold. Of this case it may be further remarked, that the polypus had been extracted, December, 1868, by the wire loop; a remnant sprouted again, and in May, 1869, it had grown in such a direction that its extirpation would have required the resection of the upper jaw.

Mode of Action.—In the author's view, this consists in successive destruction of tissue: (*a*), by gangrenous death of the parts lying close to the needle; (*b*), by ulceration in the vicinity of these parts. It is also very probable that there is a "catalytic" or "dynamic" action; in a case observed by Ciniselli, parts not directly in contact disappeared, even after cicatrization was complete.

The technical difficulties of the operation are not great. The danger is *nil*, if care be taken. Bleeding does not occur. Pain is very moderate, if care be used. Relapses seem to be excluded.

The objections are, the cost of the operation, the amount of time required, and the necessity of having an "electrician" to attend to it.

Mr. Lawson Tait treated a case of *Encephaloid Disease of the Femur* by electrolysis, with the result that complete relief from pain, for four or five days, followed each application except the first. The intensity of the pain had been so great that it had been found necessary to administer hypodermic injections of from 20 to 24 grains of morphia daily. The size of the tumor was but slightly diminished, the treatment not having been adopted till late in the case.

Eight cases of *Hydatid Tumor of the Liver* are reported by Dr. Fagge and Mr. Durham, in which electrolysis was performed by the method of Althaus; two needles being introduced into the sac, one or two inches apart, and both connected with the negative pole of a battery of ten cells, the positive being applied in the form of a wet sponge to the skin between the needles. Duration of the operation, usually ten or fifteen minutes; in one case, twenty-five minutes. Slight febrile reaction occurred in all the cases but one, lasting about four days.

In only one instance does any doubt remain as to the completeness of the cure. Time seems to be required to test this point. The authors remark that "in each case in which we had the opportunity of examining the patient from three to six months after electrolysis, we found, as a rule, that the tumor had very manifestly decreased in size. In some instances no trace of the disease could be discovered."

The diagnosis was inferential, as no liquid was drawn by tapping from the tumors. But in each case the two needles could be made to move about and rub against each other, after their introduction into the sac. It is not at all certain that acupuncture, without galvanism, would not have effected similar cures. As regards paracentesis, however (which will in many cases effect a cure), it deserves to be noted, as an important disadvantage, that *suppuration* is apt to be set up, an event which does not occur from electrolysis.

Dr. Whitehead treated a case of *Stricture of the Rectum*, which was due to syphilis. The sessions were four in all, and extended over a month's time. Each one lasted twenty or thirty minutes, with a maximum current from twenty-three cells (zinc-platinum and zinc-copper). The anode was placed upon various parts of the hip; the cathode, in the form of a brass cylinder with rounded tip, was applied, at first to the lower part of the stricture, and subsequently within it.

There was little pain. After each application there was decided and immediate dilatation; but two months later the stricture was tight as before. No treatment seems to have been used to follow up and supplement the electrolysis. This was doubtless owing to the circumstance that the person was a Dispensary patient, and (like the majority of that class) absented herself at the critical time.

Speaking of the treatment of *Aneurism*, Holmes classifies electro-puncture with manipulation, the introduction of foreign bodies into the sac, and coagulating injections, as justifying confident hopes that they may come to be regularly used in classes of aneurism, in which they have already succeeded, though only occasionally, and, as it were, hap-hazard.

Cases of growing aneurism, affecting the thoracic aorta, or the innominata, or the roots of the left carotid, or subclavian within the thorax, or affecting the aorta and one or more of its primary branches simultaneously, are to be treated in three ways: 1. By internal or medical treatment; 2. By distal ligature; 3. By galvano-puncture. (*Lancet*, June 8.)

A case is described in which Mr. Holmes assisted Dr. Althaus. Four needles were inserted. The current from 25 cells (small) was passed, the needles being all attached to the same pole, and the direction being alternated every five minutes. Duration, twenty-five minutes. Death in ten days, with diffused inflammation of the cellular tissue all the way up the neck. (*Lancet*, July 20.)

In Drs. Duncan and Fraser on "electrolysis in aneurism," a very excellent description is given of an experiment in which the process of electrolysis was watched in the femoral artery of a dog.

"Experiment has also shown that this electric action, this coagulation of the mass of the blood, in which there is no mechanical separation of the fibrine from its other constituents, is capable of producing the total and final cure of an aneurism—an additional proof, if an additional proof were required, that the slow method of coagulation by which what Broca denominated "active" clot, is generated (*i. e.*, the fibrine separated from the other constituents, and deposited in laminæ), is not the only, though it may be the safest way of curing an aneurism.

"On the other hand, it must be allowed that there is at present much uncertainty as to the value of the method, and great ambiguity as to the immediate effects of any given operation; that those most conversant with the electrical processes and their effects when applied to the living body, are far from being agreed as to such important details as, which pole it is best to use; what is the best apparatus; whether coagulation should be produced rapidly or slowly; whether the action should be long continued or not, frequently repeated or almost solitary; and whether the metallic needles should or should not be coated over to defend the superficial parts from the electric action. But such details will be gradually cleared up as our experience of the method increases. As far as my limited practical acquaintance with the subject goes, I should incline to the belief that the action of both poles is desirable, and that the positive pole ought not to be used too long, especially if the battery is a powerful one; that a moderate action should be employed, and that it should be continued for a considerable time (under anæsthesia), until a very decided physical effect has been obtained; and that the soft parts covering the tumor should be defended by coating the stalk of the needle with vulcanite."

As an illustration of the uncertainty at present attending this operation, he speaks of two cases in which he has seen the pulsation, at first greatly reduced by electrolysis, afterwards return nearly to its former violence (*Lancet*, Sept. 7).

Tracheotomy.—Verneuil (*Lancet*, May 18, 1872). In a case of *tracheotomy*, Verneuil employed the "galvano-caustic knife," the blade of which was heated to a *dull red*—for "white heat provokes hæmorrhages"—and the operation was performed as with an ordinary knife. Scarcely any bleeding followed; the pain was very slight, and the wound did well.

Amussat, in 1870, ran a platinum wire for the distance of two-thirds of an inch underneath the integument and into the trachea; then applying the current, he made the wire burn its way out; no hæmorrhage occurred. The wound healed in 28 days.

Granular Urethritis.—Dr. Byrne (*Proc. of N. Y. Obstetrical Soc., in Journal of Obstetrics*, May, 1872). A woman had suffered for three years from the above affection, with incontinence of urine; various topical applications produced no beneficial effect; the patient was therefore etherized, and a conical electrode burner was passed the entire length of the urethra, the electrode being connected with a galvano-caustic apparatus. Five days after, an eschar came away. The patient's sufferings were not at all aggravated by the operation; one week subsequently all pain ceased, and she was able to retain the urine perfectly.

Mons. Lefort has made analyses of water taken from wells in the neighborhood of graveyards, and finds the water of wells situated 150 feet from graveyards to have a sweet, fetid taste, and upon evaporation by heat, a thick grayish residue remained, which had a strong empyreumatic odor. Upon adding reagents, carbonic acid was given off, and salts of ammonia were thrown down. He thinks that no bodies of men or animals should be buried nearer than 300 feet, to any well from which water is taken for household purposes.

A Profitable Patient.—M. Latour, referring to the death of M. Cheresh while still young, mentions a singular patient who contributed to his income 14,600 francs per annum. This person, a well known merchant, had a terrible fear of dying, and besought Cheresh to pay him a visit while in bed, every day at 9 A.M., his fee being 40 francs per visit. Cheresh consented, and for several years the arrangement was carried out. During the last years of his life this patient, a very old man, became really ill, and exacted, first two, then three, and finally four visits daily, always paying his 40 francs for each visit. (*Union Med.*)

The *Med. Times and Gazette*, in speaking of the reports of the American Army, Medical Museum, after adding a word in admiration of the splendid way in which these reports are prepared and issued, says: If this excellence is the result of Republicanism we are almost persuaded to become followers of citizen Dilke.

Reports of Medical Societies.

MIDDLESEX SOUTH DISTRICT MEDICAL SOCIETY.

C. E. VAUGHAN, M.D. SECRETARY.

THE semi-annual meeting was held at Cambridgeport, October 9th, 1872. The president, Dr. Morrill Wyman, in the chair.

Influence of the Exhalations from fresh Paint on the Fœtus in Utero.—Dr. Lincoln, of Natick, inquired if members had observed any ill effects to mother or fœtus, from exposure to the influence of fresh paint during pregnancy. He mentioned several instances of such exposure, in which the children were born feeble, and died within a few weeks from inanition. Could the turpentine in the paint be the cause?

Dr. Hodgdon, of Arlington, had met with a case of similar exposure, in which labor was premature by several weeks, and the child, puny and feeble, died in a few months.

Dr. Wyman observed that paint is a compound substance, and that other ingredients beside turpentine might have their influence. Formerly walls were often "deadened" by the application of turpentine, to destroy the gloss of the paint. This was done with closed doors and windows, and the workmen often suffered from difficult micturition and hæmaturia.

Larvæ of Œstris or Bot-fly.—Dr. Allen, of Cambridge, reported a remarkable and interesting case, the particulars of which will be given at some future time.

Four specimens of the larva of the œstris or bot-fly (variety not yet determined) were removed from beneath the skin of the neck, head and arm of a boy of about twelve years. The incision was followed by a quantity of clear yellow serum, with the larva.

There was a good deal of discussion upon the possibility and probability of the larva having voluntarily changed its position.

Dr. Allen introduced the case by remarks upon the natural history of the bot-fly, and the characteristics which distinguish it from the gad-fly.

Specimens of larvæ of several kinds of bot-fly, including a rare variety, the œstris hominis, were exhibited through the kindness of Dr. Hagen, of the Museum of Comparative Zoölogy. The specimens were referred to Dr. Hagen, and to Prof. Brauer, of Germany.

Typhoid Fever.—Dr. Driver, of Cambridge, reported a case of typhoid fever running an apparently favorable course until the 20th day; pulse then averaging 108, head clear, no real delirium. No occasion for stimulants.

On the morning of the 20th day there was a slight tremor, and stimulants were moderately given. During the night following, slight chilliness and a little wandering.

In the P.M. of the 21st day, the patient was found in a critical condition. Pulse 130, rising, tongue brown, very strong subsultus. No pneumonia, phlebitis or other complication discovered, although looked for with care. Stimulants were given freely. Seen by Dr. Wyman in consultation.

During the night there were three marked chills.

On the A.M. of the 22d day tenderness developed itself in the right calf. Several black, grumous discharges from the bowels. Died at 4 A.M. of the 23d day.

Autopsy made by Dr. Stevens, of North Cambridge. External saphenous and popliteal veins healthy. Following the latter downward a clot was found, beginning at the lower edge of the patella, and ramifying through the external belly of the gastrocnemius muscle. No evidence of inflammatory changes in the coats of the veins, and no central softening of the clot. This accords with Virchow's views.

In the femoral vein, near the iliac, a clot was found, nearly filling the calibre of the vessel.

In the small intestine several large ulcers were clearly marked out externally by vascular injection, with a whitish puckered spot in the centre. Three feet of the intestine were removed; an ulcer as large as a nickel cent, 10 inches above ilio-cœcal valve, presenting the usual appearances. Six inches higher up a second ulcer, about $\frac{3}{16}$ of an inch in diameter, nearly perforated the intestine, only a thin velum remaining. The third was a typical excavated ulcer. The fourth, and chief ulcer, 24 inches above the valve, as large as a silver quarter-dollar. Vessels largely injected, especially two large ones on either side, evidently the source of the chief hæmorrhage. A fifth was in the early stage. Sigmoid flexure full of grumous blood. Kidney sound; heart small, flabby. Other organs healthy.

The case might have been considered one of those reported as erysipelas by the older writers, but for the dissection.

Specimens of the veins and of the ulcers were shown.

Partial Inversion of the Uterus. — Dr. Nichols, of Cambridge, reported two cases of partial inversion of the uterus, occurring during the past year. In neither case was there any traction upon the cord to account for the accident. No considerable shock. Reduction was accomplished by the hand with but little difficulty, and the patients did well.

Dr. Harris, of Arlington, mentioned a case of partial inversion, seen in consultation with Dr. Morse, of N. Cambridge, discovered 24 hours after labor. Little difficulty was found in reduction.

Dr. Hildreth, of Cambridge, recently had a similar case. Uterine contractions were at first rather inefficient, but became powerful after 20 drops of Squibb's ergot. Labor normal, but after the placenta came away a partially inverted uterus was found and reduced readily. A good deal of shock.

Dr. Wyman, in 30 years of practice, had never met with a case of inversion after labor until a few weeks ago. This was returned without trouble. The pulse rose to 150 or more, but fell as soon as reduction was accomplished.

PLYMOUTH DISTRICT MEDICAL SOCIETY.

B. F. HASTINGS M.D., SECRETARY.

An adjourned meeting of the Plymouth District Medical Society was held at North Abington, Oct. 9, 1872. The President, Dr. Benjamin Hubbard, of Plymouth, in the chair.

Case of Labor complicated by Closure of the Os Uteri.—Dr. Richards, of Campello, reported the following case: —"The 31st day of July, 1871, I was called to see Mrs. R., aged 37, whose previous history is epitomized as follows: Her parents both died of phthisis, and she from infancy was subject to a cough. Fourteen years ago, after a protracted and tedious labor, she gave birth to her third child; the delivery was followed by menorrhagia for three months, some portions of the time excessive; this was succeeded by what was considered to be the menstrual flow, at intervals of two weeks, rarely exceeding three, and this continued during the whole period of lactation. The patient was treated with external bandages and abdominal supports for supposed displacement, though no vaginal examination was made. Six years ago she called upon a physician in Boston, who pronounced her case one of tubercular disease of the lungs, and prolapsus uteri. Excessive catamenia continued, but now occurred at regular periods. Treatment of the cough by inhalation was commenced at once. Six months subsequently, unmistakable symptoms of uterine disease induced an examination which revealed extensive inflammation about the os uteri, and ulceration of the os and cervix. In about this condition she remained, never completely cured, receiving at times local treatment, until within about four weeks of my being called, when after a patient and labored service of five years and a half she was pronounced not only healed in utero, but that organ was found sealed hermetically. At this time the menses were overdue a full month, and, as it was supposed that the mechanical closure of the os was the cause, an opening was made (as she says) by a lancet to allow the escape of the accumulated fluid. At this juncture she exchanged the faithful and accomplished services of her old physician, and passed into my hands.

"On my first visit I found her almost entirely free from cough, looking quite stout and robust, doing the work for a family of four persons, and exhibiting no marks of exhaustive disease. Her complaint was that she had failed to menstruate, then two months, and that she suffered from an intolerable dragging in the hypogastrium, and a great sense of pressure within the pelvis; as she expressed it, a "feeling as if she was about to burst open." A digital examination found the uterus quite low down, considerably enlarged, and the cervix so far obliterated that the organ presented a spherical and slightly corrugated feel. Three or four small growths or excrescences about the size of a common bean could be felt attached to the external walls; on a subsequent examination I found these growths becoming smaller until they finally disappeared. With the lapse of time, and the steady and constant enlargement of the belly, complaints of distress and pressure became more urgent, when, at my suggestion, Dr. Millet, of Bridgewater, was called in consultation. Four months had passed since the last menstrual flow, and after several close and careful examinations with the speculum, no os had been discovered. I began to suspect pregnancy, though, save the abdominal enlargement, there was a total absence of any symptoms pointing in that direction. The examination of the case with Dr. Millet corroborated the previous diagnosis, viz., a firmly occluded os uteri, with numberless cicatrices running in every direction, over such portions as could be taken in with the speculum. The true nature of the contents of the organ was left for quickening to determine and time to develope. She proved to be pregnant, and on the night of Jan. 21st, 1872, I was called to see her in labor. When I entered the room she was having pains as often as every five minutes, and judging from appearances in the last stages. She informed me that since the early evening, with every pain there had been a slight escape of water, but whether it was urine or the liquor amnii she was unable to determine, as the former had been beyond her control for several days. I immediately made an examination, and found pressing the brim and nearly filling the pelvis, a large, firm and round uterus, with no more the appearance of a dilated os than as though the fundus was the presenting portion. After some two hour's watching and waiting, and every fifteen minutes examining per vaginam, I fancied I felt an opening about as large as a pipe stem, and into this I introduced a common uterine sound about one-fourth of an inch, and holding it there passed it through the speculum, and that into the vagina, when I could plainly see the liquor amnii escaping. I then withdrew both sound and speculum, and introducing my finger held it on the aperture, and waited the effects of the pains, which, though very strong, seemed to have no perceptible effect upon the presenting body. I then caused a common sheet to be folded to about the width of a swathe, and placing the centre on the back, passed it around the abdomen, and bringing the two ends back, had them held quite firmly by an assistant. After six terrible pains, following each other with scarcely a remission, I felt a slight yielding at the point of my finger, and in an instant a rent was made in the uterus, from the supposed anterior labium, up directly toward the pubes, and in an instant more the child and placenta were in the world."

Dr. Richards stated that his patient was confined to her bed for two months, and made a good recovery.

Dr. Millet, of Bridgewater, said that he had never before met with a case of perfect occlusion of the os uteri after pregnancy.

Dr. Dudley, of Abington, read an elaborate essay on Bright's disease, which was followed by a general discussion among the members, of the appropriate treatment to be observed in this disease.

Dr. O. Schultzer, of Dorpat, claims great success in the treatment of diabetes, under the free internal use of glycerine and citric acid, with abstinence from starchy food.

Medical and Surgical Journal.

Boston: Thursday, October 31, 1872.

SMALLPOX AND BOARDS OF HEALTH.

The whole community is in a state of excitement about smallpox. And nothing is more natural. A loathsome disease, as little amenable to medicinal treatment as any known; which spares neither old nor young, rich nor poor, clean nor foul; which has at times, for a century together, caused one-tenth of all the deaths;—it is not strange that the people dread its embraces. There are those who believe its ravages should be kept secret, and that it is a mistake to publish the weekly list of deaths. In this we cannot agree with them. We believe that if the red flag were flying at every door where contagious disease exists, the community would be the gainer.

Let us look at the Boston list of deaths from this disease for the week ending at noon on Saturday last. They were twenty-seven in number. Nine of these were at Gallup's Island, and we have no means of knowing where they originated. Of the remaining eighteen, fifteen were north of a line drawn through Court and Cambridge Streets; two were in South Boston, and the one other case was in Edgerly Place in Ward Nine. With one or two exceptions, they were among a class of people, ignorant of the necessity or propriety of vaccination, and who neglect every means for retaining health. We have the right to judge that the percentage of those vaccinated, before having the fatal attack of this disease, was no greater than it was among those who died at the hospital, which our city fathers saw fit to close. An inspection of the records shows that in that hospital the percentage of those who bore any mark of vaccination and died was eight. On the other hand, sixty-seven per cent. died of those who bore no such indication.

Now every physician knows, perfectly well, that there were very numerous cases, very mild in their character, which did not go to the hospital; he suspects that there were other very numerous cases in which a very slight eruption only existed, and still others, in which all the other symptoms were present except an eruption. The red flag, which the law of the Commonwealth requires the Board of Aldermen to put up, would show every man what house to avoid, and would cause our people to know, from the numerous recoveries, that *the deaths among those who have been properly vaccinated are very few*.

It would have the effect, too, to keep impressed upon our people the necessity for a Board of Health for the City of Boston. With proper powers delegated to it by statute law, with its absolute independence of City Government, and with the Secretary of our State Board of Health at its head, we believe the contagion of smallpox would be almost entirely nullified among us.

But our whole State health code needs an industrious and careful revision. As it now stands, there is no requirement for vaccination before the second year is nearly completed. It provides that one may be fined for not having a *successful* vaccination, no matter if he has tried forty times. It requires an absurd isolation for all diseases "dangerous to the public health," as if some diseases were perfectly innocuous, to say the least, if not to be hankered after. It is to be hoped, when the Legislature assembles again, that a proper committee may take this whole matter in hand, and revise it faithfully; not meet in a panic and pass laws to be laughed at for their absurdity, like those we now have, but laws which the medical profession can act advisedly under, and which the public can respect. The medical profession are ready to do their part, but they cannot prevent filth; they cannot forbid people to build houses below the level of the sewers; they cannot order houses to be vacated, till they shall be habitable. A proper Board of Health in each town and city, with proper powers given by the State, can do these things, and, if subordinate to the State Board of Health, might be obliged to do them.

There is one thing, however, which we do not think any Board of Health can do, and that is translate Section 51 of the 26th Chapter of the General Statutes, which was so amended last winter that it reads as follows:—

"The provisions of Sections 16, 17, 44, 45 and 46, so far as they confer authority for the removal of patients from their homes, except in case of persons residing in boarding-houses, hotels, or where two or more families occupy the same dwelling, and in all other cases where, in the opinion of the Board of Health and the attending physician, the case cannot be properly isolated, shall not apply to smallpox."

Tea Drunkards.—Dr. Arlidge, one of the Pottery Inspectors in Staffordshire, has put forth a very sensible protest against a very pernicious custom which rarely receives sufficient attention either from the medical profession or the general public. He says that the women of the working classes make tea a principal article of diet, instead of an occasional beverage. They drink it several times a day, and the result is a lamentable amount of sickness. This is no doubt the case, and, as Dr. Arlidge remarks, a portion of the reforming zeal directed against intoxication might be wisely diverted to the repression of this very serious evil of tea-tippling among the lower classes. Tea, in anything beyond moderate quantities, is as distinctly a narcotic poison as is opium or alcohol. It is capable of ruining the digestion, of enfeebling and disordering the heart's action, and of generally shattering the nerves. And it must be remembered that not merely is it a question of narcotic excess, but the enormous amount of hot water which tea-bibbers necessarily drink is exceedingly prejudicial both to digestion and nutrition. In short, without pretending to place this evil on a par as to general effect with those caused by alcoholic drinks, one may well insist that our teetotal reformers have overlooked and even to no small extent encouraged a form of animal indulgence which is as distinctly sensual, extravagant and pernicious as any beer drinking or gin swilling in the world.

The American Association for the Cure of Inebriates held their annual meeting in New York, Oct. 8th and 9th. It was well attended and much interest manifested by the members. A synopsis of the testimony regarding inebriety as a disease recently taken by the Select Committee of the British House of Commons was read, in which eminent English and Scottish physicians concurred in the opinion that as habitual intoxication caused cerebral derangement, medical treatment in reformatory homes or inebriate asylums was required for its cure.

The Committee on Legislation, through Dr. T. L. Mason, of Brooklyn, presented the draft of a law for the establishment and regulation of inebriate asylums, of which the following are the leading features: First, supervisors of counties, or Mayors and Aldermen of cities may establish and maintain asylums in their jurisdiction for the cure of inebriates, or contract with any private asylum which may be established by general or special charter; second, inebriates shall not be confined among felons; third, commitments of inebriates may be made upon application of parents, guardians, &c., as in cases of lunacy, and while proceedings are pending, the persons shall be confined temporarily in houses of detention; fourth, voluntary patients may be received, but shall be subject to detention and control, the same as those committed by legal authorities; fifth, estates of patients shall be liable for their expenses; sixth, Commissioners to have charge of these asylums shall be appointed by the Justice of the Supreme Court and two County Judges; seventh, Commissioners of Excise shall pay to the commissioners of the Asylums a certain percentage of moneys received from licenses for the sale of intoxicating liquors; eighth, inebriates escaping may be returned by officers of the law; and, finally, an inebriate in the eyes of the law is one who, through excessive use of intoxicants, has lost control over himself, and is incapable of managing his affairs. Considerable discussion was provoked by the section giving power to detain persons entering voluntarily, but it was finally adopted.

Dr. T. L. Mason, from the Committee appointed to define the declaration of principles of the Association, stated that they consider inebriety a disease produced by the habitual use of intoxicants, and they aim to cure it as they find it, without deciding as to the morality of its cause. An invitation was received and accepted to visit the Kings County Inebriate Asylum, after which the sessions for this year were closed. The old officers were reëlected for the ensuing year, as follows: Dr. Joseph Parrish, of Pennsylvania, President; C. J. Hall, of Illinois, and Otis Clapp, of Massachusetts, Vice-Presidents; Dr. D. G. Dodge, of New York, Secretary, and Dr. T. L. Mason, of New York, Treasurer.

The Committee appointed to explain the declaration of principles presented its report, the leading points in which were as follows:—

The Association, while reaffirming its belief that inebriety is a disease, does not intend to deny or palliate the criminality of drunkenness; as, however the habit may have been acquired, it can only be kept up by the continual use of intoxicants. It considers alcohol, though having its uses as a remedy and in the arts, as essentially a poison, ranking with opium, arsenic, &c., but liable to produce greater injury by its abuse. The efficacy of prohibitory laws, restrictive legislation, temperance societies, it would not belittle, and only claims that asylums, too, should occupy a prominent place among agencies for curing inebriates, without believing that they alone can accomplish anything. Without excusing the criminality of drunkenness, it declares that the character and degree of the offence requires discrimination in punishing the drunkard, whose responsibility often rests, in fact, upon the community which allows the cup to be put to his lips. Inebriates it holds to be proper subjects for medical treatment, by which many are curable and are cured; but none of the members profess to have any specific medicines for the disease, as has been intimated. By medical treatment is meant, beside administering drugs, deprivation of intoxicants, the use of a nutritive diet, exercise, amusements, &c., to which are added social and moral influences. The Association explicitly expresses its condemnation of indulgence in intoxicants, and of the sale of them.

A paper on the use of monobromide of camphor in delirium tremens with very satisfactory results was read by Dr. L. D. Mason, of Brooklyn; also one by Dr. Paluel de Marmon, of Kingsbridge, N. Y., on the "Prevention of Drunkenness." Dr. Willard Parker and Dr. Elisha Harris, of New York, were appointed a committee, with power to add others, to address Boards of Charities in different States concerning the cure of inebriates. After providing for the publication of the proceedings, the Association adjourned.

Correspondence.

Messrs. Editors :—

In the editorial of the Journal for October 10th, there is contained, either in an ambiguous sense, or per se, rather an unkind cut upon physiological students. Will you do me the favor to insert the enclosed feeble defence or protest.

1. If physiology is of no use in the study of medicine, why should it receive so prominent a position in our medical colleges?

2. If physiology is of no use in preparing the medical student for the study of diseases, it certainly must be of no use to the practitioner in determining the treatment as well as the cause of diseases.

3. If it is necessary to know the natural history of diseases, it is also useful to know the natural history of the drngs used in their cure.

4. How may we know the natural history of drugs? Is it at the bedside, where those very functions are seriously incommoded (of the extent of which we are often ignorant) by inactivity of the vital organs; or by the study of subjective phenomena that may occur to the person making the experiment (it is by this means homœopathists have codified symptoms, as well as the action of certain sugar pellets called medicines); or by the objective phenomena observed by the experimenter in the body of the person, *or animal*, upon whom the experiment is made?

5. Physiology is advancing and has advanced in two ways; by observation and experiment. Observation is a process by which the observer obtains, without interference, an insight of the mysterious functions of the body; experiment is a process by which the observer obtains, by interference, a knowledge of these functions. The interference may be caused by the observer, or may result from the suppression or lessened activity of the functions of one or several organs.

6. Will the advance of medicine (this term is used in a general sense) be accomplished solely by the results of clinical experience unaided by scientific research?

7. Have not those countries in which physiological research has flourished, done more for the advance of medical knowledge, than those where physiology has had little or no prominence?

8. Why should we have in our medical colleges any other instructors than those in the department of clinical medicine, and such gray-haired practitioners, as may from the experience of their thousands of patients furnish a certain number of formulas and prescriptions, suitable for every symptom and every disease, with which the young Æsculapius can go forth armed and equipped to do battle with disease?

4. What practical value to the medical student accrues from his instruction in chemistry? Is it any the less important because its direct relation to the bedside seems so remote?

10. Physiology, the most recent of all the departments of medical study, may seem at the present time to be of little value to the medical practitioner. Who knows about its future prospects?

11. Why should the student of physiology, who has so many difficulties to meet in scientific research, have cast upon him the reflection: such as you are of no use to us who practise *physic;* and this simply because one or two men say so?

The word *empirical* is defined by Webster in his unabridged dictionary, to be "depending upon experience and observation without due regard to science and theory; narrowly and blindly experimental; said especially of medical practice, remedies, &c.; as empiric skill, empiric remedies."

Empiricism is also defined as a "practice founded on experience, and neglecting the aid of science; charlatanry; quackery."

If some of the experienced medical practitioners would assist in applying the results of physiological research to the bedside practice, perhaps, and most probably, the result would be of great use to their younger brethren; provided they could afford time to write down the results of their observations. In this way *empirical* knowledge might be replaced by *experimental* knowledge. Experiatur.

The New Hampshire State Medical Society has adopted the plan of holding its meetings semi-annually in different parts of the State. The first of these semi-annual meetings was held Oct. 8th, at Centre Harbor.

Infantile Erysipelas.—Prof. Trosseau recommends the following solution to be painted over the part of the infant's body where this disease appears:—Ether sulphuric ,60; camphor, 30 parts. (*L' Union Med.*)

Medical Miscellany.

Boylston Medical Society.—At the annual meeting of the Boylston Medical Society, held Oct. 11th, the following officers were elected for 1872–3: *President*, W. L. Richardson, M.D.; *Vice President*, F. Atwood; *Secretary and Treasurer*, F. M. Rotch. *Committee on Prize Dissertations*, J. C. White, M.D., J. N. Borland, M.D., C. W. Swan, M.D., D. W. Cheever, M.D., F. I. Knight, M.D. *Trustees of the Prize Fund*, S. Cabot, M.D., G. H. Gay, M.D., G. C. Shattuck, M.D., J. B. S. Jackson, M.D., C. E. Ware, M.D., H. W. Williams, M.D., O. W. Holmes, M.D.

Repeated Smallpox.—A woman recently died in Boston of smallpox who had, only twelve weeks previously, recovered from an attack of the same disease. In the first instance, she gave the disease to several others in the family; in the second, it took on the hæmorrhagic form.

Not many months ago a child, not over a year old, died in Boston of a well authenticated second attack of smallpox.

These cases show that recurrence depends upon individual susceptibility, and not on the length of the interval between the two exposures to contagion. In other words, it is not a "wearing out" of protection that causes the second attack.

M. Henry Durant, the founder of the International Society for the succor of those wounded in war has been overtaken by misfortune and lost all his property. A committee has been formed for soliciting funds for his relief. The member in this country is Fulton Cutting, of New York, to whom any sums of money may be sent.

A Caution.—A surgeon of Leominster, England, Mr. David Davies, has been fined £1 and costs for having twice kissed a lady who came to consult him as to the beating of her heart, and which he declared beat "naturally enough."

Pepsine.—We have long been aware that most of the pepsine of commerce was obtained from the stomach of the pig, by scraping the mucous membrane of the fresh stomach with a blunt instrument after it had been roughly cleaned of its contents, the resulting mixture of mucus and gastric juice being dried and pulverized; but we never knew till lately that the manufacturer takes what might be thought an unfair advantage of the pig to increase the "yield" of this valuable article.

It is said that the pigs are kept for some time without food until their appetites are ravenous, when they are placed where the most savory meal is steaming under their snouts, but are prevented by mechanical obstacles from getting at it. Not only do their "mouths water," but a secretion of gastric juice takes place in consequence of the mental impression, and it is during this condition that they are killed. The gastric juice, being free from food, is thus obtained in a purer state, and, it may be, in larger quantity than if taken from a stomach containing food.—*Med. Record.*

The Obstetrical Society of London has appointed a committee to form a collection of pelves, illustrative of various points in connection with obstetrics. The Hon. Secretaries to the Pelvis Committee state that they will be willing, if desired, to make arrangements as to expense of carriage, casts, models, drawings, photographs, &c., with any society or gentleman in this country who may wish to contribute specimens. Their address is at the Society's Library, 29 Regent Street, W.—*Ibid.*

Books Received.—Lessons in Physical Diagnosis. By Alfred L. Loomis, M.D., Physician to Bellevue and Charity Hospitals, New York, &c. Third Edition. New York: W. Wood & Co. 1872. Pp. 240.—Handbook of Compound Medicines, or the Prescriber's and Dispenser's Vade Mecum. By A. J Cooley. Philadelphia: J. B. Lippincott & Co. 1873. Pp. 219. (From James Campbell.)

Married,—In South Boston, 21st inst., Dr. Robert White, Jr., to Miss Emma L. Jenkins.—At Groton, 22d inst., John G. Park, M.D., of Worcester, to Miss Elizabeth B. Lawrence.—At Portsmouth, 24th inst., Dr. J. F. Hall to Miss Fannie E. Laighton.

Died,—At Burke, N. Y., 23d inst., Dr. Wm. P. Stone, during the war Assistant Surgeon of the 2d New Hampshire Regiment, and a graduate of Dartmouth Medical College, aged 67 years.

Deaths in fifteen Cities and Towns of Massachusetts, for the week ending Oct. 19, 1872.

Cities and Towns.	*No. of Deaths.*
Boston	163
Charlestown	13
Worcester	27
Lowell	19
Milford	1
Chelsea	6
Salem	10
Lawrence	12
Lynn	13
Gloucester	8
Fitchburg	2
Taunton	7
Newburyport	4
Somerville	6
Holyoke	5
	296

Prevalent Diseases.

Consumption	49
Typhoid Fever	23
Cholera Infantum	17

Thirty deaths from smallpox have been reported; twenty-eight in Boston, one in Chelsea, and one in Charlestown.

George Derby, M.D.,
Secretary of State Board of Health.

Deaths in Boston for the week ending Saturday, October 26th, 131. Males, 70; females, 61. Accident, 2—abscess, 1—apoplexy, 2—cyanosis, 1—bronchitis, 5—disease of the brain, 3—cerebro-spinal meningitis, 2—cancer, 3—cholera infantum, 2—consumption, 15—convulsions, 2—croup, 1—debility, 3—drowned, 1—dysentery, 1—diphtheria, 1—scarlet fever, 2—typhoid fever, 8—gangrene, 1—gastritis, 1—disease of the heart, 5—homicide, 2—intemperance, 2—disease of the kidneys, 1—disease of the liver, 3—congestion of the lungs, 1—inflammation of the lungs, 4—marasmus, 8—old age, 2—paralysis, 1—premature birth, 4—puerperal disease, 1—purpura, 1—smallpox, 27—syphilis, 1—suicide, 2—ulcers, 1—whooping cough, 2—unknown, 6.

Under 5 years of age, 46—between 5 and 20 years, 18—between 20 and 40 years, 34—between 40 and 60 years, 19—above 60 years, 14. Born in the United States, 79—Ireland, 27—other places, 25.

THE

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Original Communications.

THE VALUE OF THE OPHTHALMOSCOPE TO THE GENERAL PRACTITIONER.

By B. Joy Jeffries, M.D., Boston.

Read before the Massachusetts Medical Society, June 4th, 1872.

I trust time will prove I am correct in saying that before ten years shall have elapsed the professors of theory and practice in our best medical schools will teach the use of the ophthalmoscope as now they do the stethoscope. This, however, will not be so very rapid an advance, since a generation will then have passed by, from the time when Prof. Helmholz so modestly placed before the medical and scientific world the invention of his genius. The value of this invention to the ophthalmic surgeon need not here be dwelt upon, since it is now, of course, universally recognized that his specialty could not be practised without its aid. I may say of it, as I have elsewhere of the life and labors of the late Prof. Graefe, namely, that it has done very much to turn a doubtful specialty into a certain science.

What I desire to here point out is the value of the ophthalmoscope in general practice, and I cannot, perhaps, do this better than by briefly speaking of the diseases in which it affords us an additional and valuable means of diagnosis, without entering into the detail of how and why it does this. It will not be necessary either, to enter into any discussion as to exactly how reliable the knowledge we obtain is, or rather how much may be deduced from the symptoms we can observe and group together, because the whole study is at present comparatively new and yet in its infancy. Certainly, a wide field for observation and thought is here rapidly opening before us, and busy workers are already in various parts of the world engaged in general ophthalmoscopy. As the optic nerve entrance and retina have so often been likened to a portion of the brain itself which the ophthalmoscope places directly under our eyes, I will commence with the cerebral affections in which this invention helps us out in our diagnosis. At present, the lungs and heart may as well be studied and their diseases treated without the use of the stethoscope, as affections of the brain and nervous system without the employment of the ophthalmoscope by the specialist in this department. I do not, therefore, as is seen, propose to give all the ophthalmoscopic signs or symptoms or discuss them, but simply point out how and when the eye mirror can help us and in what affections.

Epilepsy.—Here the ophthalmoscope is hardly needed for diagnosis. From recent observations of patients during the fit, it would seem, however, as if the mirror might some day trace out the cause of the malady.

Chorea.—Here, again, nothing was at first seen, till Dr. Hughlings Jackson discovered signs resembling embolism.

Mania and Dementia.—Ophthalmoscopic signs are frequent and numerous, and already so classified as to assist us in the diagnosis between organic and functional disease.

Tubercular Meningitis.—There is now conclusive testimony that the mirror will not only assist in deciding, but give us very definite knowledge of just those cases of meningitis where the general symptoms are inconclusive. This I mean entirely aside from the deposits of tubercle seen in the choroid by the ophthalmoscope.

Meningitis with Fevers, Pyæmia, &c.—Here the mirror signs are of great value for differential diagnosis, and the study of the amauroses accompanying or following blood-poisoning and the exanthemata has already furnished us with some definite results.

Syphilitic, Rheumatic, Alcoholic and Traumatic Meningitis do not so often afford us mirror signs. In the first, however, we have so much specific interference with nerve and retina as to point to the latent cause.

Hydrocephalus affords us marked optic nerve changes, even when the child perhaps may only be regarded as stupid or slow in learning.

Tumors within the Cranium.—I mean enlargements, thickenings or growths occupying the space within the cranial walls. It was long ago noticed that these caused peculiar changes in the optic nerve and the retinal vessels. These changes have been and still are the subject of close and careful observation for practitioners who have used the ophthalmoscope in the study of mental or cerebral diseases. But even they, as well as others, are, so to speak, in the collective and recording period. This will be readily understood when we remember that it rarely occurs for a patient with cerebral tumor to remain very long under one physician's care, even if an expert with the eye mirror. Post mortems are also rare in these cases, so that but few medical men have frequently examined a case with the ophthalmoscope during life, noted the changes, and found after death exactly to what alterations in the brain these were due. Hence the value of every observation being truthfully recorded, however slight the symptoms may have seemed. These collected records will bye-and-bye lead to truth and discovery. If, now, I am directly asked, "Can the ophthalmoscope tell us anything about tumors in the brain," I should reply, it certainly can, but do not suppose it will entirely supplement careful and diligent study of all other symptoms and good common sense reasoning. The stethoscope does not tell us so much, as it gives us a greater variety of data to argue from, a larger field of symptoms. Remember how long it has been before the microscope regained its proper position in medicine, lost because it could not answer of itself with truth and authority whether our patient was to die of cancer or tubercle, in the hands of those who rather expected to see the diagnosis and prognosis written out on the slide at the side of the specimen.

General Paralysis.—Various observers are agreed that decided and definite ophthalmoscopic changes are visible in the optic disks of a kind we see where what is called *white atrophy* is going on.

Spinal Affections.—Here, again, we have the eye mirror assisting us in diagnosis, and, to an extent, perhaps, even locating the seat of injury or disease.

Bright's Disease.—The profession now pretty generally know that inflammation of the retina occurs in this disease of the kidneys, accompanied by more or less loss of sight. Will the ophthalmoscope help us any in diagnosis? Other appliances and methods of test will undoubtedly tell us our patient has Bright's disease, but the mirror alone will prove to us that the failure of sight is due to this affection. Not unfrequently, however, the ophthalmic surgeon sends to the general practitioner a patient with this disease, who applied solely on account of failing vision, that being to him his first symptom. The retinal changes are so marked as to be very readily seen and recognized as such.

Leukœmia presents very peculiar and interesting changes in the fundus oculi, the study of which seems to be opening to us some new and more correct views of the disease itself.

Syphilis.—Well as syphilis is known to affect the anterior portion of the eye in the form of iritis, even specialists in the department have remained unfamiliar with the changes in the optic nerve and retina, visible to the ophthalmoscope, some of which afford us very strong points of both diagnosis and treatment.

Diabetes.—It may occur that retinal trouble will induce a person to first apply to the specialist, when examination of the urine shows the presence of sugar, and the diabetic patient is sent to his own family physician for care and treatment. I mean that retinitis may be a marked symptom to the mirror, before the patient's attention is called to the quantity or quality of his urine.

Poisoning from Alcohol.—Loss of visual power is well known and recognized in habitual drunkards. Amblyopia *ex abusu* is one of the ophthalmic surgeon's headings. The mirror shows us the cause and warns us as to diagnosis.

Poisoning from Tobacco.—Several good observers and careful and truthful recorders have seen ophthalmoscopic changes in the optic nerve which are gradually being recognized as directly caused by the use of tobacco.

Poisoning from Lead.—The eye suffers in several ways from lead poisoning. Inflammation and subsequent atrophy of the optic nerve are directly seen by the mirror to confirm our diagnosis and shape our prognosis in this insidious and dangerous malady.

Menstruation directly affects the visual power, which the mirror shows to be due to visible changes in the nerve and its bloodvessels.

Diseases of the Heart and Bloodvessels.—Here every day is proving to us that the ophthalmoscope is of great value in diagnosticating or locating grave lesions of circulation, aortic aneurisms, for instance. In the retinal circulation we have veins and arteries side by side with the heart's impress, so to speak, on both systems of bloodvessels.

I have purposely confined this list to those general or local affections in which the mirror can be of real assistance to us in diagnosis, as reports from various observers the last few years have amply proved. To discuss precisely how it assists us is not, as I said, a part of my paper. The recent monographs on this subject reach several hundred pages, open to all for study, and the reader's attention must have been frequently arrested in the medical journals lately by constant reports of ophthalmic signs and symptoms associated with very various diseases. It will thus be seen that the eye mirror is being gradually wrested from the ophthalmic surgeon as a special instrument for diagnosis, so that it cannot be long before it is at the side of the stethoscope on the table of the general practitioner. Specialists in mental diseases are now hard at work with it, conscious that without its aid a large and important group of symptoms are beyond their reach. The report of a cerebral affection without the ophthalmoscopic signs would be now regarded much as the report of nephritic trouble without the urine analysis.

But, now, aside from the nicer points in medical ophthalmoscopy, to be appreciated and used in diagnosis perhaps still a long time only by those familiar and expert with their presence and meaning, is the eye mirror of as direct practical value to the general practising doctor, as the microscope in determining vegetable parasites or urinary casts? I would reply, most certainly, and especially to all at work away from centres of population, where, till now, ophthalmic surgeons alone find enough remunerative work, and to whom a patient may be readily sent. Let me here give a few examples in proof of my assertion. A patient awakes in the morning, seeing only the half or a portion of an object. This is a natural cause of fright to him and to the physician called in, who endeavors hurriedly to recall the cerebral troubles in which half-vision occurs. At last, however, his wit is baffled, and the terrified man or woman is sent, perhaps hundreds of miles by stage-coach, steamboat or cars, to some ophthalmic surgeon. A glance with the eye mirror shows him a partially detached retina, to become wholly so, very likely, by the necessary journey home. Surely, it would have been worth something to that village doctor, and still more to the patient, had the former been able to look into the globe and diagnosticated what is as apparent as a torn or rumpled shirt-bosom, namely, separation of the retina.

Cataract.—I should be afraid, almost ashamed, to say how many times this has been the diagnosis brought me by a patient who had indelible opacities of the cornea, but whose crystalline lens was perfectly transparent. A declaration of inability to remove the *scum* by operative interference often giving rise to a doubt of my professional attainments, and not unfrequently to an expressed wish to be told of the locality of some other *institute.* A very few minutes devoted to learning the use of, and as many seconds' glance at such opacities and clear pupil with, the ophthalmoscope would have avoided a disagreeable exposure, not always to be kept from intelligent and shrewd American men and women.

Injuries of the Eye.—It does not require a very dexterous use of the ophthalmoscope to detect a foreign body like a piece of metal or stone in the crystalline lens, or within the globe, in vitreous or retina. Surety of such presence or absence is certainly invaluable to the doctor, and will well repay the time spent in learning something at least about the eye-mirror and its use.

Hæmorrhage, retinal or otherwise, of traumatic character, is, so to speak, a coarse object readily seen by the ophthalmoscope. To be able to tell the patient whom it has temporarily blinded that he will again see when it has become absorbed, cannot tend to hurt the practitioner in the eyes of his village clients, even if they persist in attributing the restored vision to the placebo given.

When once you have learned to see and recognize the healthy optic nerve entrance into the eyeball, through the eye mirror, you cannot fail to diagnosticate complete white atrophy causing total amaurosis, and need not send the patient miles from home to learn from quasi-oracular lips that they are and will remain blind.

Retinitis Pigmentosa.—As you are probably well aware, there is a form of disease causing gradual blindness culminating in total loss of vision at about 45 years of age, the essential element of which is a peculiar stellate deposit of pigment in the retina in shape like bone corpuscles. Once seen it will ever after be recognized, or perhaps equally well from having seen an ophthalmoscopic picture of the interior of the globe. Why should not the village doctor see this deposit and tell the patient of his impending blindness? When he knows that blood relatives have married he may even look for it in their offspring, since some 25 per cent. of persons with retinitis pigmentosa are found to have parents who were blood relatives, as first cousins, &c.

Railway or other Injuries.—When these affect the eye, and the case, as often happens, comes into court on the question of damages, an ophthalmoscopic examination may readily decide whether the patient can see or not. An ophthalmic surgeon is not always to be obtained just when wanted. Any surgeon after a few weeks' work with the ophthalmoscope might easily recognize gross appearances in the fundus oculi, enabling him to give a positive opinion that the plaintiff was blind, and explain why.

Glaucoma.—I saw, many years ago, one of the best ophthalmic surgeons in Europe mistake cataract for this disease. The reverse too often happens, for the reason that the pupil in glaucoma has a yellowish-green look, like some stages of cataract. Now a single glance with the ophthalmoscope will prove to us by the red reflection from the bottom of the eye that the lens is comparatively transparent and there is no cataract, even if the hardened globe, dilated pupil, and usual great pain, has not already suggested glaucoma. The necessary immediate operative interference of iridectomy and its success in restoring vision need not here be dwelt upon. I would simply call attention to the fact that very little knowledge of the use of the ophthalmoscope may save the practitioner, if he cannot himself perform iridectomy, the mortification of not having called upon some one who could, at a time when success would have been insured. Glaucoma causes cataract finally, which iridectomy in season would have prevented.

Dislocation of the Crystalline Lens.—This not infrequent accident from injury, even when very slight, as from sneezing, naturally produces great disturbance of the refraction of the eye. The displacement of the lens is most simply and readily seen and explained by the ophthalmoscope. A patient may thus be saved being sent, perhaps a great distance, to an ophthalmic surgeon who can say no more than the doctor at home could have, if he had troubled himself to become but a little posted in the use of the ophthalmoscope.

I have thus briefly shown you the value of the ophthalmoscope as a means of diagnosis to the general practitioner. And this in two ways: first, as an additional means in some of the most difficult cases we have to deal with, viz., affections of the brain and cord. You must have noticed that for the past few years there have been frequent articles in the medical journals from the pens of specialists now at work with the ophthalmoscope in diseases of the nervous system. As an ophthalmic surgeon, I welcome their labors as relieving us of a duty hitherto thrown upon our hands, but which we were naturally not in the true position to discharge to our own or the patient's advantage. For instance, some one is sent to me with trouble of the visual powers, with a request from the physician that I should determine what affection the ophthalmoscope will point out. I regret to state that as a general thing this is unsatisfactory, because I see the patient but once or twice, when I may detect *nothing positive*, and so report. Were they, however, constantly under observation, then the eye mirror would give very valuable hints for diagnosis and prognosis. It is not, however, an ophthalmic case; perhaps it is a supposed tumor of the brain. Here, then, most certainly, the general practitioner should be able to use the ophthalmoscope and diagnosticate from what he sees. The time is rapidly coming when at least those who pretend to treat nervous troubles must be thorough ophthalmoscopists, or as is just, take rank and place behind those who have mastered the eye mirror and become familiar with its revelations.

Secondly, I have brought to your notice but a few of the many instances where but a slight acquaintance with the use of the ophthalmoscope will be of infinite service to the busy doctor out of reach of the centres of population where special surgeons settle. You will all agree, I think, that it pays to have a microscope and use it for diagnosis. A little familiarity with the ophthalmoscope will soon convince you that it pays to have this instrument and be able to employ it to help out your diagnosis, or perhaps settle your case at once. Every one near you affords material for the observation of the healthy optic nerve and retina, and ample material and opportunities exist at all the eye infirmaries for the familiarizing yourselves with morbid appearances. You need not be a specialist to use with great satisfaction and profit the eye mirror, any more than to employ the laryngoscope, the endoscope, or the sphygmograph. Perhaps we all do not realize that the laity are learning the use of the ophthalmoscope simply as a scientific instrument. If you will visit the physical laboratory of the Institute of Technology in this city, you will see there a large hall filled with students at work at separate tables, each solving practically some physical problem with the instruments in his own hands. At one table you will find the ophthalmoscope, and the student's problem is to learn its theory and use, and finally draw a picture of what he observes through the instrument in the model of a human eye, the interior of which he can see in no other way than by means of the eye mirror he has before him. Now that student may hereafter be the engineer employed to survey and lay out a railroad through your town or village. Would it not be a little mortifying if he could look into the eye of your patient, one of his workmen, and tell you the piece of steel was still bedded in the globe, whilst you had promised the man his future sight because you judged the portion of metal had flown off from the eye and not penetrated it.

Finally, I would draw your attention to what may have escaped observation, namely, that the ophthalmoscope next to the microscope has done so much towards elevating and forwarding medical study and practice, by offering the means for and requiring better, closer and more truthful observation, more careful and more thoughtful deduction from such observation, and hence more intelligent and successful practice. We must all remember that the best distinction we can show the community between educated physicians and the hosts of quacks and pretenders is the wide gap between their ignorance and our striving for knowledge and truth. The wider and deeper we make this gap, the easier will it be for us to gain the confidence and retain the respect of our communities. The ophthalmoscope should be a powerful adjuvant in this.

Of the many books and various forms of instruments, as well as methods and means of study in ophthalmoscopy, I did not propose to speak, and therefore have said here nothing concerning them.

15 *Chestnut Street.*

CONGENITAL CYST OF THE NECK.

By W. C. B. Fifield, M.D., Dorchester.

In reading recently a thesis of M. Paul Boucher, entitled *"Etude sur les Kystes Congénitaux du Cou,"* my recollection reverted to a case of congenital cyst of the neck occurring in my own practice and published many years ago in the Journal.

The case did not receive much attention at the time, but it seems to be unique among the cases recorded, and as it overthrows the differential diagnosis of M. Boucher I shall ask a republication of it.

M. Boucher divides congenital cysts of the neck into two classes, simple and composite. Of the simple, he gives the following description: "Simple congenital cyst of the neck presents the appearance of a tumor variable in size and extent. In some cases it does not exceed the size of a pullet's egg, in others it occupies the whole lateral part of the neck, and sometimes encroaches on the cheek. It is invariably found on the left side of the neck. (Why on the *left* is unknown. Let us recall here the statement of Malgaigne that the left half of the body presents defects of conformation or fœtal lesions more often than the right.) More prominent and better defined when it is small, it spreads itself out, and seems to have its boundaries less clearly marked when it is more voluminous. We can, however, assign as extreme limits —upwards, the border of the lower jaw; downwards, the clavicle; inwards, the median line; outwards, the sterno-mastoid muscle. It is composed of a single sac, but this may be incompletely partitioned by trabeculæ which radiate from its posterior wall. The walls are very thin and fluctuation is distinctly perceptible. It is invariably situated on the anterior part of the neck, *i. e.* in front of the sterno-mastoid muscle. It does not appear to affect the health and well-being of the child, and is unaccompanied by any other malformation. Any interference by operations, undertaken for its removal or for obliteration of the sac, by stimulant injections, is fraught with the greatest danger to the life of the patient.

"Composite congenital cysts are distinguished from the simple, first, by their situation. Simple congenital cysts, always superficial, are *never* situated elsewhere than on the anterior lateral part of the neck. Composite cysts, on the contrary, lie deeply and show themselves both on the anterior and posterior part of the neck. Between these, also, a great difference exists. Posterior cysts are commonly found upon infants born before term, and are accompanied by some defect of conformation, while those of the anterior part are found upon children born at full term, of good health, and without bodily deformity. Anterior cysts are often large, and most frequently occupy both the anterior (meaning by anterior the middle line from the chin to the sternum) and bi-lateral portions of the neck. Posterior cysts occupy by preference the median line, extending on each side of the vertebral column. In some cases, however, they proceed from one side of this line and reach even to the acromion. Not fairly fluctuating, composite congenital cysts present irregularities to the touch, being apparently solid in some parts and soft in others. They are irremediable by any operation. The diagnosis must lie between adult hydrocele of the neck, for the simple cyst; between ranula, cysts of various contents below the chin, congenital goitre, cystic goitre, and congenital cysts of the thyroid, for the anterior composite cysts, and between spina-bifida and encephalocele for the posterior composite cyst."

M. Boucher gives no record of either simple or composite cyst extending into the axilla.

Cæsar Hawkins, in his article on "A Peculiar Form of Congenital Tumor of the Neck," alluding, probably, to the composite cyst which so resembles ranula, says that he was at first inclined to believe that these cysts resulted from the obstruction of the conduits of the parotid and sub-maxillary glands, but he rejected this opinion when he saw a congenital tumor of many cysts occupying the axilla.

The case reported by me in 1860, entitled "Congenital Cyst," not only presents some points that invalidate M. Boucher's plan of diagnosis, but is unique in the extension of the cyst to the axilla. It is interesting to remark that, at the time of publication, a correct plan of treatment was given, that of expectancy, combined, if necessary, with capillary punctures; notwithstanding the success claimed at that time by M. Roux, of Toulon, for injections of iodine, but which are shown by M. Boucher to have been obtained only after repeated attempts, great suffering and most serious risk of life. Simple hydrocele of the neck in adults is another matter.

An ambrotype of the patient is still in my possession and is worthy of being photographed.

On the 7th of April, 1859, I was requested to see a new-born child in Braintree. The child presented, in the *left posterior* cervical region known as the left posterior mastoid triangle, a tumor more than equalling the size of the two closed fists. It was tense, fluctuating, seemed entirely subcutaneous and overhung the shoulder of that side, rolling and swaying about with the motions imparted to the child. Within the axilla of the same side was another tumor of the same appearance as the first, but much smaller, evidently containing fluid. By pressure on the cervical tumor, the axillary tumor could be distended, while the first became flaccid, and *vice versa.* The liquid did not flow through any subcutaneous channel, but seemed to pass directly through the shoulder, in the space between the scapula and clavicle, by a narrow neck like that connecting the two globês of an hour-glass. My interest in the case was so much excited that I invited my friends Drs. J. B. S. Jackson and Calvin Ellis to see the child. They kindly consented, and came to Braintree. I understood Dr. Jackson to say that he had not met with a parallel case. The tumors were then much more flaccid than at birth. Day by day they decreased in size until they were scarcely visible. Thus they remained until January, 1860, nine months, when they again began to enlarge, until having almost reached their original size, I was requested to see them. The superior was now, as it had been before, the largest. They were quite hard and gave to the touch a feeling as if the finger was passing over the fœtal surface of a placenta. They were tender, and the child cried with pain when they were handled. On Wednesday, last, I again saw the child. The superior cyst had suppurated and was discharging a rusty-colored pus. The child had no bodily deformity. The tumor disappeared and the patient is now (1872) a well grown boy. At the time of the report of the case, I remarked that it might be appropriately called congenital hydrocele of the neck. In M. Boucher's thesis, published in 1868, I find that Wernher had given the name of "congenital hygroma of the neck" to these cysts, not making the division of simple and composite. Under the title *Cou* in the *Dictionnaire de Médecine*, M. Maunoir gives cases of hydrocele of the neck, but makes no mention of congenital cysts. At the time of this case, I was unable to find any allusion to cysts of the neck in new-born children. *The London Lancet* of Dec. 10th, 1859, contained the following paragraph :—

"*Injection of Congenital Cysts of the Neck with Iodine.*—At the last meeting of the Société de Chirurgie, M. Boinet related the particulars of the success of M. Roux, of Toulon, in treating multilocular cysts of the neck by puncture and injections of iodine. The patients were newly-born children, and the success highly encouraging." I then added, "Since, however, children may readily attain the age of three or four years without suffering, there are many reasons for postponing the operation. If the tumor gives inconvenience, occasional capillary punctures will give relief."

This seems to be the opinion of M. Boucher, both for simple and composite cysts, that any operation is unadvisable.

My case conflicts with the diagnosis of M. Boucher in several particulars. 1st. Simple congenital cysts may appear in the posterior region of the neck. 2d. They may exceed the boundaries given by M. Boucher, and appear in the axilla. 3d. Contrary to the proposition of M. Boucher and Herr Wernher, a posterior cyst may be found in a child born at term and presenting no deformity of body. Lastly, the result shows the good effects of an expectant mode of treatment.

ABSORPTION OF RETAINED PLACENTA.

By A. D. Robinson, M.D., Island Pond, Vt.

Mrs. T., multipara, aged 37, became pregnant about the middle of October, 1871. On the first of March following I was consulted by her husband, who informed me that his wife had symptoms of threatened miscarriage. I did not see the case, but the usual advice and remedies touching cases of like character were prescribed. Four weeks subsequently I was summoned to visit Mrs. T.; found her suffering from quite a profuse uterine hæmorrhage, attended with considerable gastric disturbance and vomiting, but no uterine pain.

My suspicions having partially framed a diagnosis in advance, I was not a little surprised to receive the following history from both the lady and her husband. I was informed that on the evening following the day on which Mr. T. called on me for the prescription for his wife, soon after retiring to bed, she was delivered of a four months' fœtus, with—to use her own language—very little pain or inconvenience, but that no afterbirth followed the discharge of the fœtus. Mrs T. also informed me that her confinement to the bed was comparatively brief from the moment of her miscarriage, and that she had enjoyed a good degree of health, so that she had attended to her own household duties up to the time of her attack four weeks subsequently.

Suspecting that the undischarged placenta might have been thrown off through decomposition, in a fluid form, questions bearing on such a result were asked, but with positive assurance that *less* discharge existed than at a birth of full term, and attended with no unusual amount of fœtor.

On examination of the uterus, I found a shortened neck and unnaturally large fundus, furnishing almost indubitable evidence of its having recently contained a fœtus, and that it still held within its walls some foreign body, which I had good reason to believe was a placenta, or some portion of one. But, suffice it to say, our patient was relieved of the vomiting by a laxative enema, which brought away a considerable quantity of hardened fæcal matter; and of the uterine hæmorrhage by opiates and rest.

From this hour Mrs. T. gradually recovered; and, if we may accept her evidence to verify the fact, no placenta has been thrown off, either entire or in part, and she still continues in the enjoyment—so far as I know—of perfect health. I may add still further with propriety, that she is a person of unusual intelligence and reliability, and in every respect irreproachable character, which goes very far to strengthen her observation of the case.

I have thus furnished to the profession a brief history of one of those freaks in obstetric practice which would seem quite incredible were it not that cases of similar import have been long since met with. As the question of absorption of a retained placenta is still *sub judice*, an accumulation of evidence may still be necessary to clear up this among other anomalous cases of obstetric surgery.

September 20, 1872.

In the treatment of erysipelas, Professor Broca recommends the application of collodion upon the skin above the part attacked. The layer of collodion, which is to be on sound skin, should be from six to eight centimetres wide, and forming a complete circle, separating the healthy skin from that attacked. A slight circular compression is thus produced, and it is rare for the disease to cross this barrier, behind which it speedily fades. The part should be examined once or twice a day, in order at once to repair any fissures, and the collodion should be quite pure, without any oil, which is sometimes added to it.

Progress in Medicine.

REPORT ON OPHTHALMOLOGY.

By O. F. Wadsworth, M.D.

Development.

Sernoff (*Centralbl. f. d. Med. Wiss.*, 13, 1872) makes an important contribution to our knowledge of the development of the eye. In the embryo of the hen, on the second day of development, when the outer germinal layer begins to fold in to form the lens, a layer of the middle germinal layer (connective tissue) lies between it and the ocular vesicle, and is pushed into the hollow of the secondary ocular vesicle before the lens. As the lens is cut off from the outer layer, this connective tissue layer closes around it and forms a "temporary lens capsule." It is not yet (on the third day) structureless, but faintly fibrillar and encloses nuclei. From the posterior half of the temporary capsule are formed, later, the vitreous; the posterior half of the lens capsule (at first containing nuclei and afterward becoming structureless); the zonula Zinnii. The anterior half of the temporary capsule splits into two layers, which form the cornea and anterior lens capsule. The iris grows forth from the periphery of this split and is at first attached to the lens capsule at its papillary edge, later becomes free. The pigment layer of the iris arises from the anterior edge of the ocular vesicle, which presses forward against it, and has therefore the same genetic character as the pigment layer of the retina. In mammals, which have a papillary membrane, the process of development of the capsule is probably the same, the vascular papillary membrane representing the lens capsule and becoming structureless.

Anatomy.

The Lymph-vessel System and the Nerves of the Cornea.—Lavdowski (*Arch. f. Mikros. Anat.*, Bd. viii. Hft. 4).—The author injected the corneas of various animals and of man, and treated them by different reagents, of which chloride of gold proved the most satisfactory. He considers that there exist in the cornea a series of anastomosing canals, which possess a separate wall of their own, distinct from the corneal substance proper. At the points of anastomosis the canals widen so as to form a cavity of considerable size, and here cells, consisting of a moderate amount of protoplasm and enclosing a large nucleus, are situated. These cells are attached to the wall of the canal only on one side, while the protoplasm in other directions floats freely in the fluid which the canals contain. As regards the manner of attachment of the cells, he agrees with Schweigger-Seidel, but the views of the latter as to their composition, that they are simply delicate, transparent plates containing nuclei, having the same characteristics as endothelium elsewhere, he distinctly rejects. Beside the canals already described, the injected preparations showed also a series of tubes in direct connection with them, but of different form and mutual relation. These, which other observers have also seen, but have considered artificial productions due to the injected fluid entering the stems of the nerves, he refers to the peri-neural lymph-vessels.

The nerves of the cornea he brings into intimate relations with the canals and corpuscles. The finer branches often enter and run along for some distance within the canals, passing through the substance of corneal corpuscles in their course, and again emerge, to divide and finally terminate in the walls of the canals, or the nuclei or nucleoli of the corpuscles. His figures show axis-cylinders entering the corpuscles, and clearly to be followed to the nucleolus. The latter method of termination has been described also by Lipmann (*Virch. Arch.*, Bd. 48), but a comparison of the text and drawings of the two investigators gives the impression that the terminal fibres of Lavdowski are coarser. "Thick axis-cylinders, which on the one side enter the chain of canals, coalesce with the gradually diminishing ends of the latter, and, separating into their primitive fibres, reach the inside of the canal, while their opposite ends, here not separated into their individual fibres, spread out into rhombic plates of irregular form closely attached to the wall of the canal, and sometimes containing nuclei," are also described and figured. This appearance was only observed in the cornea of the dog. The free ending of fibres with terminal enlargements in the corneal tissue is denied. In the epithelium, nerve fibres were only followed to the external layer of cells, but though he has never seen them, he is a firm believer in the existence of the free terminal swellings above the epithelium observed by Cohnheim. In an appendix it is stated that the termination of nerve fibres in the nucleoli of the corpuscles has been confirmed by tearing the preparations and isolating the elements.

Lymph-Spaces.—The distribution of lymph-spaces in the eye, as well as in other parts of the body, has been the subject of much investigation in the last few years, and the pathological importance which some of the discoveries in this direction have attained must be an excuse for not confining the account of them strictly to the present year. Schwalbe (*Arch. f. mikros. Anat.*, 1870) described several lymph-spaces in the eye and its adnexes. The *anterior space* comprises the aqueous chamber, both before and behind the iris, the so-called canal of Petit, and the cavities of the meshwork behind the ligamentum pectinatum. It empties not into other lymph-vessels, but through the canal of Schlemm into the anterior ciliary veins. The *sub-vaginal space* is situated between the outer and inner sheath of the optic nerve, and extends from the point of union of the sheaths with the sclerotic to the optic foramen, where it is in communication with the arachnoid cavity. It is traversed by a meshwork of elastic fibres and clothed with endothelium. The *supra-vaginal space*, also in connection with the arachnoid cavity, extends from the optic foramen to the posterior border of Tenon's capsule, lying between the outer sheath of the nerve and a fibrous fascia which surrounds the sheath and joins the capsule of Tenon. At this point, it communicates with the cavity between Tenon's capsule and the sclera. Where the venæ vorticosæ perforate the sclera they are accompanied by perivascular lymph-canals, by means of which Tenon's space connects with a narrow fissure, extending around the eye between sclera and choroid from the entrance of the optic nerve to the ora serrata, the *peri-choroidal space*. The opposite surfaces of this space are united by numerous elastic fibres, and less numerous fibres stretch between the surfaces of the supra-vaginal and Tenon's spaces. All are lined with endothelium.

Schwalbe found that a solution of Berlin blue injected under a moderate, steady pressure into the arachnoid cavity, penetrated through the optic foramen into the supra-vaginal spaces, and from the latter into Tenon's space and the peri-choroidal space. By injecting the peri-choroidal space he was able to observe the exit of the fluid through the sclera by the side of the venæ vorticosæ, and sections showed clearly the anatomical relations here existing. No communication between the sub- and supra-vaginal spaces appeared to exist. These discoveries have led to similar investigations by others, and have served as the basis for various hypotheses as to the production of different pathological changes in the eye, some of which will be referred to later. Schmidt (*Graefe's Arch.* xv.) repeated the injection experiments of Schwalbe; succeeded in filling the sub-vaginal space, but did not obtain a complete filling of Tenon's space, nor demonstrate its connection with the peri-choroidal space. He did obtain, however, an injection of the lamina cribrosa in the form of a fine network, starting from the anterior extremity of the sub-vaginal space, and stretching across the nerve at its entrance to the eye. The fluid extended a short distance backward between the bundles of nerve fibres, but not forward into the retina. He, therefore, concludes that there is a network of lymph-vessels in the lamina cribrosa connecting with the sub-vaginal space. Manz (*Graefe's Arch.* xvi.) made injections beneath the dura mater of dead and living animals. He succeeded in injecting the sub-vaginal and, to some extent, Tenon's space, but not the peri-choroidal or the lamina cribrosa. Key and Retzius (*Nordisk. med. Arkiv* 1870, *Centralb. f. d. Med. Wiss.*, 33, 1871) injected all the spaces described by Schwalbe. They found, also, that fluid penetrated from the sub-arachnoid space into a meshwork between the inner sheath of the nerve and the nerve itself. Michel (*Graefe's Arch.* xviii.), by injections of the eyes of animals and man, corroborated and extended the discoveries of Schwalbe. He found that a system of fine fissures is present in the outer sheath of the optic nerve and in the sclera; that these can be injected by careful manipulation, and that by means of them the sub-vaginal space communicates with the supra-vaginal and peri-choroidal spaces, and the latter with Tenon's space. In the neighborhood of the junction of outer sheath and sclera the former consists of some four tolerably distinct layers, and here the fluid passes most readily through the sheath. The great individual modifications which occur, even in normal human eyes, at this point, influence the readiness of transmission. Strongly confirmatory of the view that the fissures in sclera and sheath are lymph-vessels and not artificial productions, is the presence in them of endothelial cells, these cells being the same as those so long known in the sclera under the name of connective-tissue corpuscles. It is well known that the corpuscles of the sclera bear great resemblance to the corneal corpuscles. This discovery, therefore, would support the view of Schweigger-Seidel as to the endothelial nature of the latter. Injection of the lamina cribrosa Michel found only in a few instances and to slight degree.

The Pigment layer of the Retina was investigated by Morano (*Archiv. f. mikros. Anat.* viii.) in the frog, triton and other animals. He found the cells hexagonal and smooth on the choroidal surface; seen from the side there is first, toward the choroid, a clear layer of protoplasm, to which succeeds a much thicker pigmented portion; the inner part is made up of fine projections which lie between the rods and cones. Sometimes the inner edge of the cells, instead of dividing into many projections, narrows and again widens and forms a sort of hollow tube. In the frog, the pigment granules extend to the ends of the projections and can be followed as far as the external limitans. A nucleus, with large nucleolus, is situated at the boundary of the pigmented and non-pigmented portions of the cell, and in the frog and some other of the animals examined, but not in all, the cells contain yellow oil globules. The crenellations on the rods seen by Schultze he considers due to the projections of the epithelial cells.

Kryptophthalmus.—Zehender, in the *Monatsbl. f. Augenh,* July and August, describes a female child, presenting among other anomalies that of a complete want of development of the eyelids, the skin stretching unbroken over the imperfectly developed globes. This is the first case which has been recorded of this anomaly without at the same time imperfect development of skull or brain, or lack of eyeballs. The brain and skull were here well developed, and, although both eyes were imperfect, there was in the right eye very evident quantitative perception of light. The child lived nine months. For the results of the careful and minute examination *post mortem* we must refer to the original article. Manz, who made the examination of the eyes, proposed the name of kryptophthalmus for the malformation.

PHYSIOLOGY.

Connection between Retina and Brain.—Brown-Séquard (*Archiv de Physiologie,* March, 1872) denies the correctness of the now generally accepted theory of Wollaston, according to which the fibres of each optic tract divide at the chiasma, a portion going to either eye, so that the right lateral halves of both retinæ are supplied by the right, the left halves by the left optic tract. Admitting that this theory is in perfect harmony with some cases of hemiopia in which there was lesion of one tract or one lateral half of the brain, he yet states that there are many facts which show its falsity. He considers that clinical and experimental facts lead strongly to the following conclusions: "1st. Each half of the brain suffices for vision in the two eyes, and each optic tract places the corresponding half of the brain in communication with the two halves of both retinæ; 2d. The amaurosis, in the case of lesion of one optic tract, or of the tubercula quadrigemina or other parts of one-half of the encephalon, or one side of the spinal cord, does not depend on the loss of function of the conductors of visual impressions or of a point of the centre which presides over these impressions, but rather on the influence which an irritation excited at the place of lesion exercises on the nutrition of the eye, of the optic nerve, or of other parts." The details of the facts in support of these opinions are promised later. Meantime, if Wollaston's theory be rejected, it is difficult to explain the many carefully observed cases in which, with lesion of one side of the brain, there has been complete loss of vision over the whole corresponding lateral halves of both retinæ, while the vision of the opposite lateral halves remained quite normal.

On the Influence of the Corpora Quadrigemina on the Pupil.—Knoll made a series of experiments on white rabbits (*Centralbl. f. d. Med. Wiss.,* 17, 1872) to determine whether the corpora quadrigemina take part in producing the reflex contraction of the pupil through the oculo-motorius when the optic nerve is stimulated. Since the optic tract passes as a flattened band along the inner anterior half of the corpora quadrigemina, the supposition arose that the earlier experimentors had wounded also the fibres running in it. Special attention was therefore given to this point. When the optic nerve was divided between eye and chiasma, the author saw dilatation and paralysis only of the same side, while the opposite eye was not affected. So soon, however, as the division was made between the chiasma and brain, the paralysis of the iris occurred only on the opposite side. He therefore supposes that there is a complete crossing in the chiasma of the fibres which transmit the stimulus to the oculo-motorius. The action of the oculo-motor on the iris must also be simply reflex, not at all tonic, since, after the optic has been divided, division of the oculo-motor causes no farther dilatation of the pupil.

Division of the optic thalami and corpora quadrigemina showed that the wounding of those parts causes no change in the reaction of the iris to the stimulus of light, so long as the macroscopically visible fibres of the tractus opticus are spared. Division of these fibres produces immediate paralysis of the iris on the opposite side. Irritation of the anterior corpora quadrigemina produced dilatation of the pupils of both eyes, but was more marked on the same side. This action ceased, however, so soon as the two sympathetics in the neck were cut; and the author believes that it was due to an irritation of the oculo-spinal centre, which, according to Salkowski, extends into the medulla oblongata.

Influence of Sympathetic on Nutrition of the Eye.—Sinitzin (*Inaug. Diss.*, Moscow, 1871, *Ann. d. Ocul.*, 5 and 6, 1872) sought to determine, on rabbits, the effect of injuries of the cervical sympathetic on parts innervated by it. Having removed the superior cervical ganglion on one side, he introduced, twenty-four hours later, fine spiculæ of glass into the cornea of both eyes. Considerable inflammation followed on the side on which the nerve was intact; on the divided side it was slight, and soon disappeared. The temperature on the injured side was higher, and the fundus of the eye hyperæmic. After the removal of the ganglion had existed for a long time, the iris paled and appeared bloodless. When the injury to the cornea was done ten to twenty-seven days after removal of the cervical ganglion, the results were nearly the same on the two sides. In another set of experiments, he first excited inflammation in both corneæ, and later removed the cervical ganglion of one side. Here the effect was similar to that in the first experiment; absorption of the inflammatory products and healing took place more readily on the side on which the ganglion was wanting. Section of the trigeminus was not followed by neuro-paralytic ulceration of the cornea when the superior cervical ganglion was at the same time removed, and if the latter was only removed after the ulceration following section of the trigeminus had occurred, it still caused the ulceration to disappear, or at least not to increase. The author attributes the results thus obtained to the increased afflux of blood and higher temperature, and he convinced himself by other experiments of the truth of this view.

Accommodation in Aphakia.—Förster (*Monatsbl. f. Augenh.*, Feb. and March, 1872) endeavors to show from the investigation of a number of patients operated on for cataract that, contrary to the universally received opinion, aphakial eyes may possess a considerable power of accommodation. Some of the instances which he gives are certainly rather startling in face of the views now held, and which have been supposed to be absolutely proved. F. gives the amount of accommodation found in 26 eyes (22 individuals); in 7 he reckons the accommodation as $\frac{1}{56}$ or less, 8 have an accommodative power greater than $\frac{1}{16}$, and one greater than $\frac{1}{7}$. Förster states that he found the amount of accommodation greater in the young, less in the old, which corresponds with the rule for normal eyes, and this, he says, is the chief argument in favor of his view. He found also that this power of accommodation increased for many months or years after the removal of the lens. How the accommodation is produced he does not attempt to explain.

Without farther knowledge of the cases examined than the few details given in the article, it seems as if a part at least of the apparent accommodation may have been due to the existence of only a small opening through which the rays of light could reach the retina, the greater part of the pupil being blocked by opaque capsule or false membrane. With such an opening the circles of dispersion would be reduced to a minimum, and the range of vision considerable, independently of any accommodation. The case, for instance, in which accommodation is assumed greater than $\frac{1}{7}$, was examined seven months after division of a capsular opacity which had extended across the pupil. Another case with assumed accommodation $= \frac{1}{9}$ had, four weeks previously, undergone division of capsular opacity. Later, the capsule was a second time divided, and, three weeks after the operation, the opening in the capsule being then presumably larger, the accommodation had sunk to less than $\frac{1}{13}$.

The observations of Woinow (*Protocoles de la Soc. Phys. méd. de Moscou*, 1871, *Annales d'Oculistique*, 5 and 6, 1872) may possibly have a bearing on Förster's views. Woinow found, on measuring with the ophthalmometer the curves of the corneæ of persons who had been operated on for cataract and then calculating the glass required to correct the corneal astigmatism, that the glass thus obtained did not suit, but that a cylindrical glass of different focus and with a different direction of axis was required to neutralize the astigmatism of the eye. He concludes from this that the posterior pole of the eye is also the cause and seat of the astigmatism. He has also observed that, patients operated on for cataract often require for near objects a cylindrical glass of different focus and with different direction of the axis than for vision in the distance, and the change in the direction of the axis may vary 25°. Measurements with the ophthalmometer showed that no change in the curves of the cornea of such eyes occurred. Therefore, in convergence to observe near objects, he supposes that the astigmatism varies according to variations in the posterior segment of the globe of the eye.

Ophthalmoscopes.—The variety of ophthalmoscopes increases rapidly. Carter has modified Burke's fixed ophthalmoscope by substituting for one of the mirrors a convex lens and making some other slight changes which render its use more easy. Sichel (*Annales d'Oculist.*, Jan. and Feb.) describes an ophthalmoscope for two observers. A right angled prism is placed in a case behind the hole in the mirror so as to intercept one portion of the rays and direct them to the side to enter the eye of one observer, while the remaining portion of the rays pass directly backward to be received by the eye of the one who manages the instrument. Schweigger (*Berlin Klin. Wochensch.*, 49, 1871) pointed out that an ophthalmoscope for two observers could be readily obtained by modifying the binocular ophthalmoscope of Girard-Teulon. The modification proposed would make the instrument identical with that constructed by Sichel.

Perimeter.—Scherk (*Monatsbl. f. Augenh.* May, 1872) describes and figures a new perimeter. It consists of the half of a hollow sphere of 1′ radius, the inner surface blackened and divided by red lines radiating from its centre. On this surface the field of vision may be marked out with chalk. It is divided into two parts along a vertical line through the centre, which may be separated for convenience of obtaining proper illumination, and it has a head rest which brings the eye to be examined at the centre of the sphere. Carter (*Monatsbl. f. Augenh.*, Sept.) has modified Förster's perimeter, so as to have a movable quadrant instead of a semi-circle, and arranged it so that the examined eye looks through a hole instead of at a dot.

Size of Field of Vision.—Dobrowolski (*Monatsbl. f. Augenh.*, May, 1872) demonstrates that besides the projection of brow and nose, the eyelids also influence the size of the field of vision. When they are drawn out of the way the size of the field is increased.

Tonometry.—In the *Archives of Ophthalmology and Otology,* vol. ii. No. 2, appeared a long article by Pfluger on Tonometry of the Eye. The author insists upon the value of the tonometer of Dorr for detecting slight changes of tension of the eye, and determining the degree of change more accurately than can be done by palpation. He gives tables of the results of measurements (made by means of this instrument) of the tension of a large number of normal and also of diseased eyes. There is need, however, of much more extended observations before any directly practical advantage can be drawn from this method. It appears from one of the tables given that the tension of the normal eye increases constantly in proportion to the age of the individual.

CONJUNCTIVA.

The total Destruction of the Conjunctiva is advised by Streatfield (*Lancet,* June 15, 1872) in cases in which the eye has been removed and the patient is unable to wear an artificial eye, either on account of the irritation caused by it, expense, or contraction of the conjunctival sac. In such cases a troublesome conjunctivitis is often kept up by the entrance of dust through the imperfectly closed lids, or the irritation caused by turning in of the lashes upon the surface of the conjunctiva. He proposes the application to the conjunctival surface of a thin layer of chloride of zinc paste, and the destruction later of any pockets of conjunctiva that may remain by the actual cautery. The patient is thus rendered more comfortable and the cosmetic effect improved. The time required for healing, and the annoyance from the suppuration during the granulation of the cauterized surface, seem to be the chief objections to this method. The reporter has succeeded in attaining the same objects, with very little inconvenience to the patient, by removing a band of conjunctiva close to the inner edge of the lids and uniting the raw surfaces of the upper and lower lid by deep sutures. A bridge of conjunctiva is left near the inner canthus, to allow the escape of any secretion from that portion of the conjunctiva which remains.

CORNEA.

Pathology of Corneal Inflammation.—(Severin, *Beitrag z. Lehre v. d. Entzündung,* Dorpat, 1871; *Schmidt's Jahrbüch.*, 1872, No. 5; Key and Wallis, *Virchow's Arch.*, Bd. 55; Duval, *Archives de Physiologie*, 2, 1872.*—The relation of the corneal corpuscles to inflammation of the cornea has given rise to many articles and much discussion, and the question whether they proliferate and aid in the formation of pus-cells must still be regarded as unsettled. Those who insist on their active participation in inflammation admit, with scarcely an exception, and in part at least, the correctness of the views of Cohnheim. Severin studied the process of inflammation on frogs poisoned with muscarin. By this means the heart's action and the blood-current was stopped, and the exit of white blood-corpuscles much diminished, while the animal still remained alive several hours. He found that changes occurred in the corneal corpuscles, both at the edge of the cornea and near the irritated point, and concludes that they do not simply remain passive in inflammation of the cornea, as Cohnheim asserted; but he was unable to follow their behavior far on account of the death of the animals experimented on.

The article by Key and Wallis is a very valuable one and will well repay a careful perusal. They experimented on frogs, in the winter as well as the spring and summer. The former season they found much more favorable, since the inflammation was then less severe as well as slower in its course, and the successive changes which occurred could be more accurately followed. They state that the corneal-corpuscles took absolutely no part in the production of pus-cells; even when the wandering cells were crowded about them they could still by means of thin sections and immersion lenses be perceived to retain their normal appearance, and they became again plainly visible so soon as the wandering cells had become less numerous. Only when the inflammatory excitement had been very considerable, and the numbers of wandering cells which had traversed the anterior lamellæ and the neighborhood of the irritated spot very great, were the corpuscles somewhat affected in those parts. Even then, though the network formed by the processes was somewhat disturbed and irregular, and the processes occasionally pale and broken, the corpuscles themselves and their characteristic nuclei remained in place. The formation of vacuoli in the corpuscles described by Norris and Stricker was due to the direct action of nitrate of silver, which was used as an excitant. The vacuoli occurred only when the nitrate was applied, never when the irritation was otherwise excited; and were found only in a zone around the cauterized spot, which was as large in fifteen to thirty minutes after the application of the silver as it became at any time.

Duval investigated the relations of the white blood-corpuscles to the origin of pus-cells in the cornea as well as in other parts of the body. He was unable to discover any other source for the pus-cells in the inflamed cornea than proliferation of the corneal corpuscles. The latter, he states, evidently hypertrophy and proliferate. As he was also unable to observe the exit of the white blood-corpuscles from the veins or capillaries of the frog's mesentery, than which no fact in pathology is better established, and denies positively that it occurs, perhaps his opinion should be accepted with reserve.

Bleeding for Inflammation of Cornea.—Rubaschkin (*Annal. d'Oculist.*, 5 and 6, 1872) endeavored, by means of experiments on dogs, to determine the influence of bleeding on traumatic inflammation of the cornea. He found that in the animals which were bled the swelling of the epithelium and of the substance of the cornea was increased, that suppuration and sloughing of the corneal substance was greater, and that the progress of cicatrization was delayed.

Herpes Corneæ.—Schmidt (*Monatsbl. f. Augenh.*, May, 1872) relates two cases of herpes of the cornea, of the character which Horner, at the meeting of the Ophthalmological Society at Heidelberg, in 1871, described as following catarrhal affections of the respiratory passages. He would make a distinction between these cases, as inflammatory or catarrhal, and such cases as the following, neuralgic herpes.

The patient had chronic granulations and slight pannus. One afternoon, a number of minute vesicles were observed on both corneæ. These disappeared under the application of calomel, but reappeared each afternoon at the same time, preceded by severe pain in the eyes and course of the supra-orbital nerves. There was developed tenderness to pressure over the supraorbital notch on either side and hyperæsthesia of the skin of the forehead. The daily recurrence of pain and eruption continued, spite of quinia, arsenic, morphia injections, section of supra-orbital nerves, electricity and a great variety of other treatment, for nearly four months, when the patient withdrew from observation. The division of the supra-orbital nerves caused cessation of the supra-orbital neuralgia, but pain in the eye continued. Even an intercurrent attack of diphtheritic conjunctivitis did not stop the eruption of vesicles.

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* See, also, as regards formation of pus-cells from connective-tissue corpuscles, the article by Hoffman noticed in Report on Pathology in this JOURNAL for October 17th.

Treatment of Ulcus Corneæ Serpens.—Alfred Graefe (*Monatsbl. f. Augenh.*, May) suggests a modification of Saemisch's operation for ulcus corneæ serpens, to which he was led in a case in which S.'s operation did not succeed, by the idea of separating the still healthy from the diseased tissue. He makes a cut not through the base of the ulcer, but in the healthy tissue just beyond the progressing infiltration, and states that in this way he has always succeeded in preserving the still unaffected part of the cornea, even in very advanced cases.

Tattooing of Cornea.—In the *Archives for Ophthalmology and Otology*, ii. 2, Wecker writes on his method of tattooing leucomata of the cornea. Although undertaken at first merely with the view of improving the appearance of the patient, he learned from experience that it is in some cases of value also as regards improvement of vision, since it prevents the dazzling caused by diffusion of the light passing into the eye through the grayish border of the leucoma. Ticehurst (*Lancet*, May 4) advises the use of several fine sewing-needles bound together in the performance of the operation. He says the result is much neater with this instrument than with the grooved needle used by Wecker. Talko (*Monatsbl. f Augenh.*, July and August) adds his testimony to the advantages of the operation, and points out that its effect is likely to be imperfect when the leucoma contains blood-vessels, since the bleeding from these washes away the pigment employed and prevents its deposit in the cornea. The reporter has also experienced this difficulty in two cases. Levis (*Phil. Med Times*, Oct. 5) suggests that this operation might be used with advantage in albinos to prevent the entrance of rays through the peripheral portion of the cornea.

[To be continued.]

THE Elizabeth, N. J., *Journal* says that a certain undertaker there sent to one of the prominent physicians of that place a lot of death certificates with his card on them, as a complimentary present to the doctor. What the doctor sent to the undertaker as an acknowledgment of the compliment we have not heard.

Reports of Medical Societies.

BOSTON SOCIETY FOR MEDICAL IMPROVEMENT.

F. B. GREENOUGH, M.D., SECRETARY.

SEPT. 9th.—*Acute Tuberculosis simulating Typhoid Fever.*—Dr. EDES reported the case and showed the specimen.

S. L., æt. 23, laundress, entered the City Hospital July 29, stating that her general health was good, and that her present illness began eight days before, with headache and vomiting. Subsequent inquiries, however, show that this was not the beginning of her illness, since she had complained before that time of a disagreeable sensation at her stomach, and had been noticed to have a poor appetite. Had been in bed for a few days before entrance. Skin hot and dry. Pulse 108. Tongue coated and dry. No appetite. Bowels moved two days before entrance by a cathartic. Complains of pain in top of head and temples.

July 30th.—Bromide of potassium, grs. xx. ter die; grs. xxx. at night.

31st.—Magnesiæ citratis, ℨi. every three hours. Omit bromide.

The headache decreased, but stupor took its place. There was no diarrhœa and no rose spots. The patient died on Aug. 12th,

The treatment was chiefly bathing and stimulants. The temperature was very irregular, rising on one day seven degrees from morning to evening, and a portion of the time subsequently being higher in the morning than at night.

The autopsy disclosed considerable serum over the convexity of the cerebrum, and the white substance was pinkish. Nothing abnormal was noticed at the base of the brain, or in the fissure of Sylvius. There was a small amount of serum in the pleuræ and pericardium. The lungs contained large numbers of small gray tubercles, some beneath the pleura and others at different depths; few, if any, of them larger than the head of a large pin. Many of these were surrounded by rings of congestion. There was no caseous tubercle at the apex. The condition of the bronchial glands was not noted at the time, but they were probably not enlarged. The liver and spleen each contained many tubercular masses, some nearly as large as a pea, much more caseous in appearance. The kidneys contained a few small tubercles, principally, though not exclusively, under the capsule. The small intestines contained a large number of minute tubercles, with a few of larger size. The mesenteric glands around the head of the pancreas were enlarged and caseous, the others only slightly enlarged.

With the exception of one means of diagnosis which was not brought to bear, as the nature of the disease was not in the least suspected, namely, the investigation of the choroid by the ophthalmoscope, none of the usual means of distinction between the disease found and that supposed to exist could have conducted us to a certain diagnosis. The absence of diarrhœa and rose spots can hardly be considered conclusive against typhoid. Cough and dyspnœa were at no time prominent symptoms. The irregularity of temperature is not very unusual in typhoid, although its course in rising in the morning and falling at night, as sometimes happened, was, it must be admitted, exceptional; but the frequent bathing might be supposed to be not altogether without influence. The presence or absence of cicatrices of caseous glands in the neck was not noted.

Dr. Jackson said that he had never seen a case, where the tubercular deposit was not greater, terminate so soon. The nodules in the liver were larger than those in the lungs, and might, perhaps, have been developed at an earlier period, during some previous attack of which there was no record. Tubercular disease of the liver and spleen in adults is rare, more especially where, as seems to be the fact in this case, it is antecedent to that of the lungs. Louis states that he has never found tubercle in the other organs without the lungs also being affected.

Sept. 9th.—*Strangulated Femoral Hernia.* Dr. Dwight reported the case as being interesting from the fact of the strangulation being probably caused by an improper use of a truss, and also from the quickness of the recovery after operation. When seen, the patient, a woman, had been vomiting for twelve hours. Taxis not succeeding, Dr. Dwight had operated by a transverse incision. The gut looked healthy and was returned to the abdominal cavity without difficulty after the constriction had been divided. On coming out of the ether she vomited some greenish matter. On the fourth day, she had a natural dejection without cathartic or enema, and on the fifth day she was sweeping the floor.

Dr. Edes said that he had always supposed that the operation for strangulated hernia would produce a radical cure; in a case of his, however, the hernia came down after the operation, larger than before, and he had since heard it stated that such was usually the case.

Dr. Shattuck reported the case of a patient, a young man, who had been admitted to the Massachusetts General Hospital, as a case of typhoid fever. He became very violent, and, the case being pronounced by Dr. Fisher to be one of typho-mania, he was sent to the McLean Asylum, where he died.

Dr. Tyler, in answer to a question, said that typho-mania was what had been described under the name of "Bell's disease." It differed from acute mania in the fact that the patients are very weak, the delirium is constant, the tongue is coated, sordes forms on the teeth, and, in short, they have that series of symptoms which is known as typhoidal, whereas in acute mania the patients eat well and keep their strength for a long time. It is always fatal, lasting about nine or ten days, while patients suffering from acute mania usually either recover or the disease runs into the chronic form. Typho-mania is a disease *sui generis*, and not to be confounded with cases of typhoid fever, in which the delirium is a prominent symptom, as there are no abdominal lesions.

Sept. 9th.—*Ileus.* Dr. Shattuck reported the case and showed the specimen. The patient, a young man of 23, was admitted to the Massachusetts General Hospital on Aug. 31st, with the symptoms of stoppage. He had had an inguinal hernia and wore a truss for several years. On August 26th, while at work, he had strained himself, and noticed a swelling in his groin which was red and tender, but which disappeared on the 29th. The symptoms, however (obstinate constipation, vomiting, distention and tenderness of the abdomen, &c.), did not subside with the disappearance of the tumor. When admitted to the hospital, there was distention and tenderness, especially at the lower part of the abdomen. No protrusion could be seen in the groin, and both inguinal rings seemed closed. He had hot fomentations applied to the abdomen and was kept under the influence of opiates, but he gradually sank and died early on the morning of September 3d.

Autopsy by House-pupil twelve hours after death. Rigor mortis very marked. Abdomen greatly distended and very tense. On removing the sternum the apex of the heart was found at fourth left rib. Base of right lung opposite junction of fourth rib with its cartilage. Base of left lung opposite junction of fifth rib with cartilage. *Lower* border of liver at sixth rib. Coils of small intestine, chocolate in color and greatly distended, entirely concealed the stomach and large intestine. Delicate, spider-web-like adhesions between coils here and there. Somewhat increased amount of clear fluid in peritoneal cavity. One coil was firmly impacted in the true pelvis. Just over the cæcum, two coils were found adherent, on gently trying to separate which, a rupture was made and a thin, light-yellow, opaque, feculent-smelling fluid gushed out, such as was afterwards found to fill, together with gas, the whole distended portion of the small intestine. The distended portion included all the small intestine except about five feet immediately above cæcum and commenced in right iliac fossa very near the inguinal canal, which was uncovered by peritonæum, and about the size of one's little finger. Left inguinal canal normal. Small intestines below distention (the transition being abrupt), as well as colon, very small, relatively empty and normal in appearance. The distended portion was very thin, friable, and somewhat more than two inches in diameter.

Heart firmly contracted, empty, healthy. Lungs congested, otherwise normal. Liver and kidneys apparently cloudy. Spleen normal. Bladder empty.

Head not opened.

Sept. 9th.—*Needles from the Body of a Hysterical Girl.*—Dr. Jackson showed a photograph of 300 needles, which had been sent to him for the College Museum by Dr. Justin A. Andrews. They had been removed and discharged, from different parts of her body, from August to December, while she was at the Utica Insane Asylum. Eleven were found in her body after death.* He also showed a similar collection of needles from the Society's Cabinet presented by Dr. Fearing, of Nantucket.

Prof. Nelaton. — Private advices announce that the health of this distinguished surgeon is much improved, if, indeed, the accounts of his illness were not from the first considerably exaggerated. It is to be hoped that both statements are true. —*Phil. Med. Times.*

Medical and Surgical Journal.

Boston: Thursday, November 7, 1872.

FEMALE TEACHERS IN THE PUBLIC SCHOOLS.

A few weeks ago, we took occasion to put down a few thoughts on the forcing system adopted in most public schools in training up the children, not in the way they should go, but into monstrosities of literary acquirement quite beyond their years; like the fruits recently brought us from across the continent, very large in the head and very fair to look upon, but without the mellow richness and value of products raised under a more temperate sun. Nervous affections and broken health for life, chorea, hysteria, nervous debility, febrile excitement or depression, and other disturbances arising from overwork are the penalties we are called on to pay for making our boys and girls book-*read* men and women in the next generation, without the truly desirable qualification that they shall be book-*wise*. If the whole profession were to join in publishing a book which should be a record of all the cases resulting from the present mal-administration of our schools for one year, we should find it a sad record indeed.

There is another class which deserves our sympathy, namely, the teachers, and especially the female teachers of our schools; a supplement might well be written with a goodly number of cases of broken health in the teachers to add to those of the taught. Such cases, we all know, are exceedingly hard to treat, not because of deficiency of medical knowledge or skill, but from the often-declared inability of the patient to carry out the directions of the physician. It is of but little use for us to prescribe rest for the over-taxed mind and body, when we are met by the declaration that to take it would cause the displeasure of a committee and the consequent loss of a situation.

Let us look at some of the duties, both ordinary and extraordinary, which the female teachers of Boston are required to perform. The school hours in our grammar and primary schools are from 9 until 12 in the morning, and from 2 until 4 in the afternoon, and the teachers are obliged to be present, both morning and afternoon, fifteen minutes before the time for the session to begin. Some of the teachers close their labors for the forenoon at 12; there are others who do not leave their rooms till 1, being detained, in one way or another, in urging delinquents up to the mark. The hour before the afternoon session proves to be anything but a time of rest and recreation, and then follow two hours more of work before the day is over.

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* For a full report of this case see the Journal of Insanity for July, 1872.

Were we to stop here, the teacher's duty would not be intolerable. We find, however, by reference to some of our patients, that there are various extras, some of which are compulsory and some of which, "it is hoped"—to use the words of the school committee—the teacher will *find* time and strength to accomplish. They are expected to supervise the compositions of their pupils out of school hours, and, to a conscientious woman, such a task is by no means a light one to perform, to read over the pile of manuscript, and to correct and fashion the crude thoughts of the young minds. The compositions, moreover, must present an appearance without spot or blemish; sometimes they are re-written two or three times, and each time they must come under the supervision of the teacher. Discipline which should lead to accuracy is certainly commendable; we are only speaking of the task it imposes on the teacher.

We learn that there are in the schools lessons known as dictation exercises, in which the teacher reads passages from a book and the pupil is expected to write from such dictation. These written exercises must be carefully examined by the teachers and corrected, and an appropriate mark be given.

Following the example of the higher institutions of learning, a series of monthly written examinations is held in the upper classes of the grammar schools in the branches which have been studied. These written papers must also be passed in review by the teachers. We are now speaking of *extra work;* for the school hours are completely occupied by recitations and other exercises, and no moment can be forced out of them for such employment. All such duties as these, therefore, come upon the hours which should be sacred to the teacher for her necessary rest and recreation.

Within a year, the committee of our public schools have instituted drawing lessons for the teachers themselves, in what is known as free-hand, model and memory drawing, and also in geometrical drawing and perspective. The lessons are given on alternate Wednesday afternoons throughout the year. We understand that attendance at these courses is "voluntary" on the part of the teachers; they are, however, given to understand that these branches must be taught in the schools, and, if they are not competent to do it, others must be found who are.

As if the teachers were not already overpowered with work, a circular has recently been given out in which "it is hoped," again, that they will be able to attend a course of lectures at the Institute of Technology, of course out of school hours.

We here close the list of extras, to call attention to the fact that our teachers are under the same kind of stimulation as we see in many of their pupils. They have not exactly a "promotion" to look forward to, but they earnestly strive and overwork themselves, in season and out of season, to merit the approbation of the power which gives them employment. The strain upon the mental and physical systems is reciprocal in both teacher and pupil, and reacts most injuriously on each. To be an earnest and hard worker is one thing; to be harassed by being considered as falling short of one's duty, to be obliged to force a certain number of children to *go over* or learn a certain amount of arithmetic and geography, to feel obliged to force up, out of proper working hours, the deficiencies of blockheads, or to supervise the work of those even who are careful and painstaking; to carry out extra duties such as we have touched upon, and still others we have not mentioned, all this is weary, dragging work, and, unless opportunity is given for rest, must bring the system into a condition of nervous irritation, and, following that, of disease. We wish that one excellent passage, written by a friend in reference to his own private school, might govern our committees in the care of the schools. We offer it in his own words :—

"It is essential, we believe, to the healthful growth of mind and heart, that the pupil should be as free from nervous excitements as from the coldness and indifference of indolence. Every means should be taken to make him quiet in spirit, happy and comfortable in his school relations; for so soon as a boy of moderate ability and of honest intentions begins to grow nervous and unhappy under the amount of work required of him, that work ceases to be of any profit to him.

"Therefore no effort will ever be made to excite or force a pupil beyond his natural ability; but every effort will be made to discourage personal rivalries and unwholesome emulation in the members of the school."

A Cure for Corns.—Dr. Barbier, says the *Lyons Medical Journal*, reports the cure of the most refractory corns by the morning and evening application, with a brush, of a drop of a solution of the perchloride of iron. After a fortnight's continued application, without pain, a patient, who had suffered martyrdom for nearly forty years from a most painful corn on the inner side of each little toe, was entirely relieved. Pressure was no longer painful, and Dr. B. believed the cure radical. Two other similar cases were equally successful.

In the September number of the same Journal, Dr. Topinard, of Paris, adds a long experience confirmatory of the good effects of perchloride of iron in the destruction of corns.

He pares off the corns, and then applies a drop of the liquid. As it does not adhere readily, it should be repeated, and allowed to dry on the part. This requires some patience each time; and the application should be made every two days for a fortnight at least, and in some cases for a month. Even after apparent cure, it should be done from time to time, to prevent recurrence of the affection. Sometimes he pares off the corn a second time, taking care not to draw blood, which would render the application painful.

From Continental Journals.

Neuralgia of the Testicle.—Several years have now elapsed since Dr. Lazarus, of Cuernowitz, reported a number of instances in which spermatorrhœa was accompanied by neuralgia of the testicle. Since then, he has continued to give especial attention to cases of this nature which have come under his notice in hospital and private practice. He finds that in a very limited number of cases only is the entire testicle affected by neuralgic pains; these are commonly limited to the *epididymis*, more particularly the superior portion, together with a part of the *vas deferens*. The left testicle is more frequently affected than the right. The precise pathological changes which take place in the diseased parts have not yet been satisfactorily made out. In a few instances, however, there has been noticed a moderate swelling of the organ, with slight enlargement of the bloodvessels. The predisposing causes of this affection do not differ from those of ordinary neuralgia. It may be the result of idiopathic or traumatic inflammation, of exposure to cold and dampness, or may be induced by the mechanical pressure of some adjacent tumor.

The most common cause, however, of this form of neuralgia is long-continued sexual continence, so that, as would naturally be inferred, the list of this class of sufferers is made up very largely of bachelors. At times, it appears to be a concomitant of approaching impotence, caused here by the engorgement of the bloodvessels and seminal ducts. In such cases, marked relief has been known to follow a natural evacuation of these vessels. In other instances, neuralgia of the testicle makes its appearance in the case of broken down individuals suffering from dyspepsia. Still another cause is the induration which not unfrequently remains behind after a protracted inflammation of the epididymis. In two instances, neuralgia of this organ was found to follow the injection of a strong solution of permanganate of potash and sulphate of copper in the course of a treatment of gonorrhœa. Renal calculi, during their passage along the ureter, may also lead to an attack of this form of neuralgia. In one case seen by Dr. L. the affection was caused by a fall from a lofty scaffolding, by which the lumbar portion of the spinal column received severe injury, resulting in paralysis of the lower extremities and eventual death. Finally, neuralgia of the testicle is not unfrequently an accompaniment of varicocele. The affair generally begins with a sensation of pain in the upper portion of the epididymis, which, continuing without remission, would point to commencing inflammation of that organ, were it not for the absence of the ordinary signs of inflammation, such as redness and swelling. All doubt as to the real nature of the trouble is very soon removed, however, by the change in the severity of the pain, which now comes on in paroxysms of a burning, boring character, accompanied at times by nausea and vomiting. This pain is renewed and aggravated by motion, or whenever any pressure is applied to the scrotum. Cold applications afford no relief whatever to the sufferer; heat, on the other hand, serves to alleviate the pain, particularly when applied in the form of warm baths. This fact will explain why the patient finds himself more comfortable in heated apartments, such as the ball-room or theatre; and also why the paroxysms are less severe in summer than in winter.

Among the agents recommended for the relief of this form of neuralgia, Dr. L. speaks (*Wiener Med. Presse*, July 28, 1872) most highly of sulphate of zinc, given as follows:—

℞. Zinci sulphatis, gran. tria;
Aquæ destillatæ, unc. quinque;
Aquæ laurocerasi, drach. unam;
Syrup. cort. aurantium, unc. semis.
M. Dose — Tablespoonful three times daily.

He also advises the daily injection into the posterior wall of the scrotum of a small quantity of the solution of sulphate of zinc, having the strength of one-half grain to the ounce. In obstinate cases it may be necessary to resort to castration.

THE RELATION OF OBESITY TO DISEASES OF THE SEXUAL ORGANS IN WOMEN.—Dr. H. Kirsch, of Prague (*Centralbl. f. d. Med. Wis.*, No. 34), advances the idea that diseases of the sexual organs in women are not unfrequently dependent upon the presence of an abnormal amount of adipose tissue. Of 215 fleshy women whom he examined, 208 were found to suffer from some irregularity in the menstrual function. Of these 208, 116 complained of scanty menstruation (*menstruatio pauca*), 146 of leucorrhœa, 56 of chronic metritis. Anteversion and anteflexion of the womb in 39 of these cases, retroflexion in 11; 48 were sterile, and 47 suffered from hysteria. Dr. Kirsch maintains that the majority of these various affections tend to improve without further treatment, when once the obesity has been made to disappear. To attain this result, he recommends the adoption of a course of diet somewhat like that suggested by Banting, combined with a moderate use of the waters of Carlsbad and Marienbad.

NUTRITIVE ENEMATA.—It has been maintained by the physiologists Steinhauser and Béclard (*Gazette Hebdomadaire*, Aug. 23d, 1872) that the capability of digestion of the large intestine, which in its normal state is exceedingly small, may become more active when the juices of the small intestine, not being employed in the process of digestion, flows into the cœcum. M. Leube suggests that this discovery should be utilized for the benefit of invalids, and he therefore alleges the possibility of supporting life by throwing into the large intestine certain digestible substances mixed with a digesting agent. The latter consists of the pancreas of swine.

The enema which he suggests is a hash consisting of 50 to 100 grammes of the pancreas of a cow, freed from all fat, and 150 to 300 grammes of beef. These two substances are pounded up in a mortar, and suspended in a sufficient quantity of warm water. The injection of this compound, it is asserted, is never followed by diarrhœa. On the contrary, it is generally retained in the intestine for a period varying from twelve to thirty-six hours. For the digestion of albuminous substances it is thought that pepsine might be more efficacious.

OAKUM DRESSINGS FOR WOUNDS.—Oakum has long been employed in American hospitals as a dressing for wounds, more especially such as are attended with copious suppuration. Latterly, it has found its way into one of the hospitals of Königsberg, where, for the time being, its use has superseded that of all other dressings, and with satisfactory results. It is recommended by Dr. Heiberg, not as a disinfectant, but as possessing two important advantages over other applications.

1st. The oakum may remain for a long time undisturbed. In some cases it has not been touched for eight days after the first application. 2d. There is a marked diminution in the amount of pus secreted when oakum is used as a dressing.

Medical Miscellany.

Dr. Butler, Superintendent of the Asylum for the Insane at Hartford, Conn., has resigned his office, which he had held for thirty years.

The first number of the *Chicago Medical Register and Directory* has been published by a book firm of that city, under the supervision of Drs. Freer, Davis, Byford and others. In the cities where similar works have existed for some years, they are considered not only useful, but indispensable in the office of every active physician.

The Superintendent of the Library attached to the Surgeon General's Office at Washington desires it to be understood that the collection is not intended for medical officers of the army alone, but is freely open to the profession at large for study and for reference. It will serve as a permanent repository for the literary works of medical men, where they can be consulted at any time.

A Simple Method of Treating Chronic Diarrhœa.—A non-professional friend calls our attention to the case of a young lady, 21 years of age, in rather delicate health, of frail constitution, and whose mother some years since died in consumption. For two years, she has been comparatively an invalid, the result, in a great measure, of chronic diarrhœa. During that time she has been under the care of several physicians and has taken a variety of medicines, but all without effect. For two months she has been employing a very simple remedy with great relief, viz.: One table-spoonful of arrowroot made into a rather thin gruel with milk, and a table-spoonful of brandy added (or taken separately) morning and evening. Under this treatment she began to improve immediately and so continued. Her health has returned, and with it color and physical vivacity.

A daily newspaper has the following: A pertinent inquiry—What has been gained by the exaggerated and false stories published concerning the smallpox hospital in Albany street? We answer—nothing. Nor will anything be gained by the sensational manner of the city officials about the present epidemic. We want a *real* Board of Health.

Eye Clinic.—A Greek merchant of Bukharest, whose sister had been cured of a cataract by Dr. Kugel, a pupil of Graefe, has established a handsome hospital for diseases of the eye in that city, with an income of 40,000 francs.

The College of Physicians and Surgeons of Syracuse University opened on Oct. 3d, with a full corps of eighteen professors.

The corner-stone of the Buffalo Insane Asylum was laid September 18th, with appropriate ceremonies.

Honors to Rokitansky.—Privy Councillor Prof. Rokitansky has just received from the Emperor Don Pedro the cross of Commander of the Brazilian Order of Roses.

Books Received.—On the Treatment of Diseases of the Skin: with an Analysis of 11,000 Consecutive Cases. By Dr. McCall Anderson, Professor of Practice of Medicine in Anderson's University, Glasgow, &c. London: Macmillan & Co. 1872. Pp. 180. (From James Campbell.)

Pamphlets Received.—Respiratory Murmurs. By James R. Leaming, M.D., one of the Visiting Physicians to St. Luke's Hospital, New York. New York: D. Appleton & Co. 1872. Pp. 19.—Twenty-ninth Annual Report of the Managers of the New York State Lunatic Asylum, for the year 1871. Albany: 1872. Pp. 87.—Organization and Constitution of the American Public Health Association. New York: 1872. Pp. 15.—Modern Medicine: A Lecture delivered Oct. 7, 1872. Introductory to the Course at Jefferson Medical College. By J. M. DaCosta, M.D., Professor of the Principles and Practice of Medicine. Philadelphia: J. B. Lippincott & Co. Pp. 38.—Report on the Structure of the White Blood-Corpuscle. By J. G. Richardson, M.D., Lecturer on Pathological Anatomy in the University of Pennsylvania, &c. Philadelphia. 1872. Pp. 22.

Married,—In Hamburg, Ger., Sept. 24th, W. W. Loring, M.D., of Boston, to Miss Sara A. Oncken, of H.—In Vienna, Austria, Sept. 26th, W. H. Simmons, M.D., of Concord, Mass., to Miss Anna Schneider, of Vienna.

Died,—In Boston, Oct. 25th, Samuel Gregg, M.D.—In Glastenbury, Conn., Oct. 29th, Josiah Kittredge, M.D., of Nashua, N. H., 79.

Deaths in seventeen Cities and Towns of Massachusetts, for the week ending Oct. 26, 1872.

Cities and Towns.	*No. of Deaths.*
Boston	131
Charlestown	24
Worcester	17
Lowell	15
Milford	5
Chelsea	5
Cambridge	9
Salem	10
Lawrence	6
Lynn	14
Gloucester	4
Fitchburg	3
Taunton	6
Newburyport	8
Somerville	6
Haverhill	8
Holyoke	8
	279

Prevalent Diseases.

Consumption	51
Typhoid Fever	23
Pneumonia	13
Scarlet Fever	8
Croup and Diphtheria	8

Thirty deaths from smallpox are reported; twenty-seven in Boston and three in Charlestown.

George Derby, M.D.,
Secretary of State Board of Health.

Deaths in Boston for the week ending Saturday, November 2d, 133. Males, 67; females, 66. Accident, 4—abscess, 2—bronchitis, 5—inflammation of the brain, 1—congestion of the brain, 3—disease of the brain, 3—cancer, 1—cerebro-spinal meningitis, 1—cholera infantum, 3—consumption, 22—convulsions, 1—croup, 3—debility, 5—diarrhœa, 2—dropsy, 1—dropsy of brain, 2—drowned, 2—dysentery, 1—epilepsy, 1—scarlet fever, 7—typhoid fever, 6—gastritis, 1—disease of the heart, 7—hæmorrhage, 1—homicide, 1—imperforate rectum, 1—intemperance, 2—disease of the kidneys, 2—disease of the liver, 1—congestion of the lungs, 1—inflammation of the lungs, 7—marasmus, 8—old age, 3—paralysis, 1—premature birth, 1—peritonitis, 1—scrofula, 1—smallpox, 16—whooping cough, 1—unknown, 1.

Under 5 years of age, 51—between 5 and 20 years, 17—between 20 and 40 years, 33—between 40 and 60 years, 17—above 60 years, 15. Born in the United States, 86—Ireland, 29—other places, 18.

THE

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Original Communications.

SUMMARY OF RESULTS OF EXPERIMENTS ON THE PERCEPTION OF HIGH MUSICAL TONES.

By Clarence J. Blake, M.D., Boston.

Read before the Am. Otological Society, July 17th, 1872.

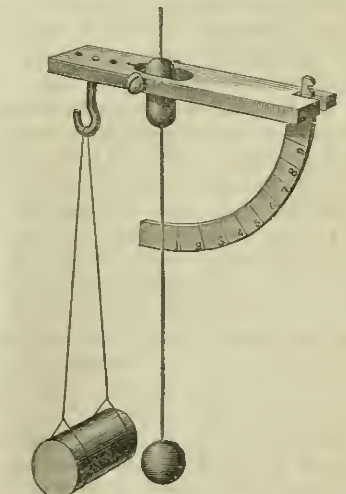
The highest limit of the perceptive power of the human ear is very variously estimated by various authors. Vierordt, for instance, gives the value of the highest tone as 48,000 (single) vibrations in the second. Helmholtz puts it at 76,000 single vibrations in the second, and Despretz at 73,700 single vibrations in the second. This discrepancy in the results obtained by different observers leads us naturally to the question as to the cause thereof; and since the test employed is always the same, a fixed number of vibrations in a second always giving the same tone, we must turn to the possibility of variation in the organ tested for an explanation of the difference. That there should be various degrees of extent of the perceptive power of the human ear in different individuals is to be expected; but this is not in itself sufficient to account for the difference in the degree of perception of high tones, particularly in different individuals, or even in the same individual under varying conditions.

That the difference is largely due to variations in the sound conducting and not in the perceptive portion of the auditory apparatus, may be readily demonstrated by experiment, and the discrepancy of statement as to the degree of perception possibly accounted for. In conducting such experiments, it is necessary first to have instruments with which high tones of a determined quality may be repeated at will with the same degree of intensity; and, second, to be able to determine accurately the condition of the organ tested. For the accomplishment of the latter object, we have the instruments at the command of every aural surgeon.

For the production of high musical tones, the steel rods as made by König, of Paris, are the best for the purpose of accurate tests. The musical value of a steel rod of certain temper and length, and of a fixed diameter, say 2 c. m., having been ascertained, the proper length of rods of the same temper and diameter to give higher tones may be determined by the rule that the number of vibrations is inversely proportional to the square of the length of the rod.

The dimensions of such a series of rods, 2 c. m. in diameter, of Hobson's choice steel, white temper, would be as follows:—

Length.	Point of Suspension.	Value.
70·5 m. m.	16·4 m. m.	35,000 v. s.
66·2 "	15·4 "	40,000 "
62·4 "	14·5 "	45,000 "
59·1 "	13·7 "	50,000 "
56·2 "	13·1 "	55,000 "
53·8 "	12·5 "	60,000 "
51·8 "	12·05 "	65,000 "
50·1 "	11·6 "	70,000 "
48·7 "	11·3 "	75,000 "
47·5 "	11·04 "	80,000 "



In order to get a clear tone, it is necessary to suspend the rods by means of loops of silk, or of fine wire; a loss of clearness in tone is the result of variation from a given point of suspension, which may be obtained by dividing the length of the rod by 4.3, the result giving the distance from the end of the rod, for the attachment of the silk or wire; for example, the length 70.5÷4.3 = 16.4, &c. To obtain a determined intensity of tone is the next requisite, and for this purpose I have employed a small steel pendulum, swinging through an arc of 90°, and suspended from a framework, from which the rods may also be suspended. By means of the pendulum swinging a given distance and striking the rod, a definite degree of intensity is obtained, which may be controlled at pleasure. With this instrument and the steel rods, the first series of experiments was to ascertain the average perceptive power in the normal ear; and this was found to vary considerably with the age; thus, at about the ages of twelve and thirteen years, a tone of 40.960 v. s. was heard at a distance of 34 feet; at the ages of from eighteen to twenty years the same tone was heard only at distances of from 13 to 16 feet, and at the extreme limit of 34 feet, the tone of 36,864 v. s. only; at the ages of from twenty-eight to thirty years, at the extreme limit of 34 feet, only tones up to 32,768 v. s. were perceptible; while above the age of fifty years the limit of perception at the same distance had still further diminished, and in a greater variety of degree.

In the majority of the cases of persons over fifty years of age, and possessing, apparently, normal hearing, who were subjected to these tests, an examination of the membrana tympani showed a varying degree of opacity of the membrane corresponding to a thickening of the mucous coat. To determine the possible connection between this appearance and the diminished perception of high tones, younger persons, in whom the membrana tympani presented an analogous appearance, were tested in the same manner, the result being a corresponding diminution of the perception of the higher tones; with this exception, however, that where the membrana tympani, in addition to thickening of its mucous coat, had its tension increased either by retraction of the musc. tensor tympani, or as the result of exhaustion of the air in the middle ear, the degree of perception of the higher tones was increased rather than diminished, a fact in accordance with the known law concerning the transmission of higher musical tones by tense membranes. In the majority of cases of simple catarrhal affections of the middle ear, in which the membrana tympani was more or less opaque, and the hearing distance for the watch and voice increased on the use of the air douche, the perception of the higher musical tones above 30,000 v. s. was diminished.

In two cases of voluntary contraction of the musc. tensor tympani the perception increased from 3,000 v. s. to 5,000 v. s. during the contraction of the muscle, above the limit of perception observed when the muscle was not contracted.

A second series of experiments to determine the influence of the membrana tympani upon the perception of high tones, and particularly the result of its elimination, was made in cases of perforation of the membrane in consequence of disease; those cases being selected in which the mucous membrane had returned to its normal condition, as it was found, after a few tests, that the thickening of the mucous membrane or the presence of even a slight quantity of secretion in the middle ear, sensibly diminished the perception of the higher tones. The results obtained were of exceeding interest; for while as a rule the perception of higher tones was increased, this varied greatly with the size and location of the perforation, and the corresponding degree of retraction of the musc. tensor tympani. The perception of high tones increased, as a rule, with the approximation of the perforation to the posterior superior periphery of the membrana tympani, and in one case where a small band of cicatricial tissue extended from the posterior border of the perforation to the long process of the incus, a tone of 65,536 v. s. was distinctly heard.

Aside from the location of the perforations, an increase in size did not seem to be accompanied by an increase in perception of high tones. In all of the above cases, however, there had been, as the result of disease, more or less of change in the structures within the middle ear; and, aside from the existence of a perforation of the membrana tympani, more or less of variation from the normal condition.

It became necessary, therefore, in order to obtain a series of controlling experiments by which to judge of the value of those already made, to watch for cases of imperforate membrana tympani in which the perception of the higher tones was normal, or nearly so, and in which it was justifiable to perforate the membrane. Of the cases in which the operation was performed, one especially illustrates in a remarkable degree the result obtained in the majority;

namely, an increase in the perception of high tones almost immediately after the operation. In the cases of simple myringotomy, preference was given to the posterior segment of the membrana tympani in making the incision. The case referred to was that of a woman, 30 years of age, in whom the hearing in both ears had been gradually and steadily diminishing for at least eight years. At the time of operation, a watch (72 in. normal hearing distance) was heard only on contact in the right ear, and not at all in the left ear; the perception for both watch and tuning-fork through the bones of the head was good. The meatus on both sides was normal, and the membrana tympani of the left ear slightly opaque, concave but in a slight degree, the short process of the malleus not very prominent, and the posterior fold somewhat elongated. Commencing in the posterior segment of the membrane, on a line with the lower end of the process of the malleus, and extending downwards and forwards, was a chain of small calcareous deposits. The test with the steel rods frequently repeated gave a tone of 35,000 v. s. as the limit of perception of high tones in that ear. In this case, the introduction of Politzer's eyelet was decided upon, and with a lance-headed myringotome, two incisions were made in the posterior inferior segment of the membrana tympani, forming a triangular flap with its base directed downwards. The flap was then turned inwards, and a hard, rubber eyelet introduced in such a manner that the flap springing upwards should press the eyelet against the edges of the opening and hold it in position, thus obviating the necessity of dilatation by means of the laminaria tent, and disturbing the membrana tympani as little as possible. Immediately after the operation, the hearing for the watch increased to contact, and for the voice to twenty feet distance; while a steel rod, having a tone of 80,000 v. s., was distinctly heard at a distance of three inches from the ear.

This high degree of perception continued unabated, and accompanied by a steady increase of hearing for the voice up to within three weeks of the date of the present meeting of the Otological Society (July 17th). From that time, the hearing for the voice and the perception of high tones diminished until July 14th, when the eyelet came away leaving a small cicatrix. On examination of the eyelet, it was found that a new growth, springing from the edges of the flap, had extended over the inner end of the eyelet, completely occluding the opening, sufficient, when considered in the light of previous observations, to account for the diminished perception of the tones of the steel rods.*

Both as regards the statements of the various authorities as to the extreme limit of the perceptive power of the human ear, and in connection with the observations of Wolf, and the later experiments of Mach and Kessel, the above experiments are of interest, and capable of a much greater degree of elaboration; while they demonstrate, to a certain extent, the diagnostic value of instruments for the purpose of testing the perception of the higher musical tones.

It is due to Prof. C. E. Pickering to express my sense of indebtedness for his council as to the mode of conducting the experiments referred to in this paper.

GUN-SHOT WOUND OF THE NECK.

By H. W. Sawtelle, M.D.

Private G. P. C., Co. G, 1st U. S. Sharpshooters, aged 21 years, was wounded, while in the act of firing his rifle, at the battle of Chancellorsville, Va., May 2d, 1863, by a conoidal ball entering about half an inch above the left clavicle and about one inch from its sternal extremity, and passing transversely between the trachea and œsophagus, lodged beneath the right clavicle near the point where the subclavian emerges. He was conveyed to Washington, D. C., admitted into St. Aloysius Hospital, May 7th, 1863. There was but little blood lost. A numb pain ensued, which lasted six months, referred particularly to the elbow-joint and fingers, the fingers remaining semi-flexed for three months. He was unable to speak aloud for two weeks, and nourishment could only be taken in the liquid form, through a tube, for several weeks. The forearm was carried at right angles, and narcotics were exhibited to relieve pain. By the middle of July following, the wound had perfectly healed, and never re-opened. At this date the joint, which had become firmly fixed at right angles from inaction, was straightened while the patient was under the influence of chloroform, and frequent flexion and extension subsequently fully restored the use of the joint. He was returned to duty in the 2d Battalion Veteran Reserve

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* One week after the meeting of the Society, the eyelet was re-introduced with like results as to the perception of high tones, and has remained in position with a continuance of the same up to the present date, Oct. 1st.

Corps, Oct. 31st, 1863, whence he was discharged the service September 14th, 1864, and pensioned.

The hand and fingers continued to be very sensitive to cold and heat, and at times intensely painful.

One morning in the fall of 1865, he found the power of supporting the head was lost to such an extent that he was unable to rise from his bed, and clonic contractions, drawing the head to the right shoulder, lasted four days, but did not recur. Late in December, 1869, the pain at the point of lodgement of the missile began to increase, and, January 31st, 1870, Professor N. S. Lincoln, having placed the patient under the influence of chloroform, cut down and removed the ball, which was found thrust in between the subclavian and a branch of the brachial plexus, the ball resting on the artery just where it emerges from beneath the clavicle, with the nerve drawn tightly across the missile in front. On pushing aside this nerve, vigorous shaking of the limb was produced. The wound healed readily; the limb, which had become somewhat atrophied, is now equal to its fellow in size and strength, and with the exception of a very slight sensitiveness of the fingers to cold and heat, which is gradually improving, the patient is entirely relieved of his suffering.

Washington, D. C., July 6th, 1872.

CASE OF VESICO-VAGINAL FISTULA, INVOLVING THE URETHRA, WITH SUCCESSFUL OPERATION.

By H. B. Stoddard, M.D., Northampton.

Read at a Meeting of the Hampshire County Medical Society, Oct. 9th, 1872.

The patient, Mrs. P. K., æt. 35, then living in Ireland, was delivered of her sixth child in November, 1866, after a protracted labor of forty-eight hours' duration, during which she was attended by a midwife.

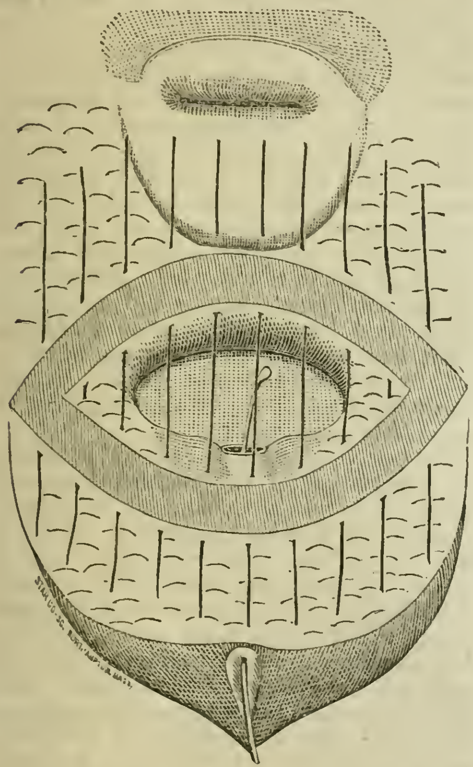
She states that, immediately afterwards, the urine failed to pass by the urethra, but came away with the lochia. She called a physician, who recognized her condition, and sent her to a hospital, three weeks after her confinement. There she submitted to an operation, silk sutures being used. The operation proved unsuccessful, and was not repeated.

The patient's general health has been unimpaired, and she has given birth to two children during the six years which have elapsed since the establishment of the fistula, both confinements being unattended by any difficulty.

The constant dribbling of urine and saturation of underclothing, together with the consequent irritation of the labia and thighs, has been a source of annoyance and mortification to her, and led her at last to consult me for relief. Upon examination, I found a fistulous opening at the base of the bladder, situated at the junction of the bladder and urethra, and involving the latter, extending an inch or more in an exactly transverse direction, three quarters of an inch in width, and thus oval in form. Of its borders, the posterior was smooth, regular and rounded, and formed of the thickened vesico-vaginal septum; the anterior was quite irregular, and was made up, in its middle third, by the thin and flattened inner extremity of the urethra; in each of its outer thirds by a thin and somewhat irregular line of vesico-vaginal tissue, lying upon a lower plane than that of the posterior border, and of the adjacent urethra. The fibres of the sphincter vesicæ seemed to have been destroyed in great measure. The vesico-vaginal wall was much thickened and indurated, and the anterior lip of the cervix uteri was prolonged down upon and blended with it to within an inch of the posterior border of the fistula. A probe was readily passed through the urethra, showing its permeability.

Here, then, it was evident, was a condition of the parts for the relief of which the usual operation of denuding and approximating the edges of the fistula was inappropriate and would have proved inadequate; for, even had I been successful in the attempt to unite the thin and irregular anterior edge, made up, in part, of the still thinner inferior wall of the urethra, to the thicker posterior edge, not only would the line of union have been a weak one, but the requisite traction upon the inferior wall of the urethra would have rendered it a funnel-shaped canal, through which the urine would have found ready and constant exit.

Influenced by this consideration, and guided by the valuable suggestions of Dr. Emmet, of New York, whom I consulted in reference to the case, I decided not to denude the *edges* of the fistula, but to remove a continuous strip of the vaginal mucous membrane, one third of an inch wide, *around*, and a quarter of an inch *back from* the edges of the fistula. Such a line of denudation would cross over the urethra transversely, and about a quarter of an inch in front of its inner extremity. When the opposite surfaces of vaginal tissue thus denuded should be approximated and united, and the open mouth of the urethra *turned into the bladder*, two important results were hoped for: *first*, a broad and firm line of union of the opposed surfaces; *second*, both from the necessary traction upon the inferior wall of the urethra and its consequent approximation to the superior wall, and, also, from the probable bending upon itself of the free inner extremity of the urethra, the establishment of a sort of valve which should in some measure fulfil the office of the missing sphincter; and such a valve would be likely to be increased in efficiency as the bladder filled and the urethra pressed more firmly against the posterior surface of the symphysis pubis. The accompanying wood-cut well illustrates the peculiarities of the case and mode of operation.



After brief preliminary treatment, the operation was performed on the 27th of April, 1872, Drs. Dunlap, Thompson and Tyler, of this town, present and assisting.

The patient was etherized and placed in Sims's position and Sims's speculum introduced. With the curved scissors, a nearly continuous strip of the vaginal mucous membrane, one-third of an inch wide, was then removed, entirely around the fistula and well out to an angle beyond each extremity.

The line of denudation, when completed, measured about two inches in length on each side of the fistula. Ten silver wire sutures were then passed under the denuded borders of the fistula, and the parts carefully approximated by twisting the ends of the sutures. Considerable difficulty was experienced in passing the sutures accurately through the delicate tissue overlying and adjoining the urethra; two or three of the sutures were passed through the hypertrophied anterior lip of the cervix before alluded to.

On the completion of the operation, apposition was found complete, and no oozing of urine could be detected in the line of the fistula.

The after-treatment consisted of confinement to bed, and to the recumbent position; two or three grains of opium daily, to keep the bowels confined and to insure sleep at night; the retention of Sims's sigmoid catheter—removed and cleansed twice a day; and, after the second day, fluid and nourishing diet, such as beef-tea, chicken broth and the like. The vagina was also washed out by a tepid water injection each day. The progress of the case was quite satisfactory; hardly any febrile reaction occurred; no vesical spasm interfered with the retention of the catheter; and the urine was wholly discharged through the instrument. On the eleventh day after the operation, the sutures were removed and union found to be complete; no leakage could be discovered at any point of the line of union. The catheter was retained three or four days longer to insure more perfect union, and during this time the bowels were relieved by enemata and castor oil.

On the fifteenth day, the catheter was removed, and the retentive and expulsive power of the bladder put to the test. To my gratification, the urine was retained for three hours, and then passed completely and without difficulty.

Since then, improvement in vesical power has been constant; at the present date, the urine is passed only three or four times daily, and the patient is not obliged to rise at night for that purpose, as she was obliged to do the first two or three weeks.

The case seems to me one of special interest, from the peculiarity of the local condition, and the mode of treating it, and from the ready resumption of its functions by an organ so long disused.

Progress in Medicine.

REPORT ON OPHTHALMOLOGY.

By O. F. Wadsworth, M.D.

(Concluded from page 326.)

Sclera.

A case of fibroma of the sclera is detailed in the last number of the *Archives of Ophthalmology and Otology* by Saemisch, which is especially interesting as the only tumor of the kind hitherto reported. It occurred in a child of ten years, was attached to the posterior wall of the sclera, extending inward from the optic nerve 10 mm., was 8 mm. wide and 5 mm. thick, and "consisted of a fibrous connective tissue, which in torn preparations appeared extremely wavy and interspersed with here more, there fewer, cellular elements, which exhibited the development of fibre from round cells in all phases." There was no special demarkation between it and the sclera. Inside the eye was a circumscribed fibroid degeneration of the choroid and retina outward from the papilla, and these coats here formed a solid mass of two mm. in thickness. The radial fibres of the retina were very generally hypertrophied; the choroid, except in the limited space mentioned, comparatively little changed. The retina was separated and the sub-retinal space filled with a purulent pulpy mass. This condition had given rise to the diagnosis of glioma before the eye was removed.

Iris and Choroid.

Cysts of the Iris.—Rothmund (*Monatsbl. f. Augenh.*, June) has collected 37 cases of cysts of the iris, and draws the following conclusions from the study and comparison of them. Three varieties must be distinguished—serous, gelatinous and epidermoid, the serous form being far the most common. A very large majority appear after wounds. The epidermoid cysts are certainly of traumatic origin, and are due to an implantation of cells from the hair-follicles or at least the cutis. The other varieties *may* arise from an implantation of epithelium from the anterior surface of the cornea, or the injury may cause the formation of a closed pouch from a portion of the iris, in which case the serum in the cyst is only humor aqueous. The best treatment is extirpation, and the cornea should be incised so as to avoid opening the cyst if possible. This treatment should be adopted so soon as the diagnosis is established. In nearly every case of excision alone, or partial excision, relapse occurs.

Syphilitic Iritis.—Schmidt (*Berl. Klin. Wochensch.*, 23, 24) writes an interesting paper on syphilitic iritis, basing his remarks on 34 successive cases carefully observed in hospital. In one case only were both eyes attacked at the same time; in 13 both eyes were affected, but at an interval; in 3 cases there was iritis in one eye, retinitis in the other. In the large majority of cases (24) syphilitic affections of the skin or mucous membranes were also present.

He calls special attention to the frequency of complications witht his form of iritis; in 7 cases gummata of iris, in 4 descemetitis, in 4 circumscribed interstitial infiltrations of cornea, in 17 opacity of vitreous, in 6 retinitis. In 2 cases, gummata starting from the iris involved the ciliary body and came forward through the sclera beneath the conjunctiva. In 2 cases a chronic cyclitis, with diminished tension of the bulb, followed the iritis. Thirty-seven eyes were carefully examined after all inflammatory symptoms had disappeared, and only about one half had vision = $\frac{1}{2}$; 19 would read Jaeger 1 with + 6. The treatment was mercurial, generally by inunction or subcutaneous injection, and the latter appeared often to have a beneficial effect. Atropine was of course used. A few cases of gummata were improved by repeated paracentesis of the cornea, after other treatment had failed. The average duration was five to six weeks, but often the date of commencement of the disease could not be accurately ascertained.

Formation of Bone in Eye.—The results of examination of two phthisical eyes in which there was a development of bone is detailed by Berthold (*Graefe's Archiv.*). A portion of the bone occupied the position of the lens, and resembled it so much in shape as at first to give rise to the supposition that it was really an ossified lens. Investigation showed, however, that the ossification proceeded from the iris. Berthold formulates the results of his examinations and the comparison of published cases as follows:—1. The most common starting point of ossification in the human eye is the choroid. 2. The iris may also ossify, and the product of its ossification easily gives rise to the supposition of an ossified lens. 3. The ciliary body shows least tendency to ossify. 4. Ossification of the human lens has not yet been shown.

Sarcoma of Choroid.—Dixon reports (*British Med. Journ.*, March 16, 1872) a case which is of great interest as regards the decision of the question whether the early removal of malignant tumors may prevent their recurrence. In June, 1858, the eye of a young lady, which contained a tumor the size of a hazel-nut, was removed, and in February, 1872, the patient remained in good health. The account of the tumor is only briefly given, but is sufficient to establish its nature as sarcoma of the choroid without reasonable doubt.

Tubercle of the Choroid.—A very interesting and instructive case of tubercle of the choroid is narrated by Fraenkel (*Berl. Klin. Wochench.*, No. 1, 1872). The patient was a girl of 6, slightly built and of little endurance, but active and of good size. She had never had any special sickness, and there had been no death from hereditary disease in the family, though her mother was slightly scrofulous. At the beginning of May, she complained, at irregular intervals, of chilliness, was rather tired and sleepy, but otherwise quite as well as usual. I saw her first only on the occasion of a friendly call on her parents. She was a little paler than usual, but, except an anæmic murmur over first intercostal space, nothing could be detected. After these symptoms had lasted two weeks, with a tendency to improve, a partial ptosis of the left eyelid appeared. Suspicion of miliary tuberculosis was excited, and May 22d the fundus was examined. In the left eye, close to the disc, was a white discoloration, somewhat larger than the disc, and drawn to a point in one direction, over which the retinal vessels made an evident curve. During the following days the chilliness and tired feeling became less, but a paresis of the superior rectus was added to the ptosis. June 1st, the discoloration in the fundus was increased in size, and its edge had joined the edge of the disc and was indistinct. The vessels were enlarged, the fundus in other respects normal. The symptoms scarcely changed for a while. She was sent into the country, and after six or seven weeks returned looking and appearing perfectly well, the ptosis and paresis of rectus gone. Examination of fundus Aug. 14th revealed increased height of the spot near disc. August 27th, sudden gastric symptoms, which soon improved, but temperature and pulse rose, and respiration was nearly doubled. No other objective symptoms of local disease. She failed rapidly. September 10th, five dots with characters of tubercle seen in fundus. Slight abnormal symptoms on percussion and auscultation. Some of the cervical glands enlarged, and great swelling and tenderness of liver. Anorexia; emaciation; sopor; only at night attacks of cough. Death on October 1st, with symptoms of sudden œdema of lungs. There was no autopsy, but the carefully detailed symptoms, which, toward the close of life, were characteristic, make the nature of the disease not doubtful. The size and shape of the spot first seen in the choroid differs from the tubercles of that membrane previously reported; the changes it underwent, however, and the fact that a still larger one has been observed *post mortem* at the Berlin Pathological Institute, as also the later appearance of other tubercles in the same eye, appear to settle its character. The case also shows that general miliary tuberculosis may, after exciting some symptoms, become again for a while entirely latent.

RETINA AND OPTIC NERVE.

Arterial Pulse in the Retina.—An article by Becker appeared in the last number of *Graefe's Archiv* on the visible phenomena of the circulation in the human retina. The chief results of his observation appeared in the report of the last Heidelberg Congress, and an abstract of them was published in this JOURNAL May 16th. He found arterial pulsation almost invariably present, with insufficiency of the aortic valves, and also in two cases of aneurism of the aorta, but in no other form of heart disease. In three cases in which there was no heart disease and the eyes were normal, Becker was also able to discover a marked arterial pulse, but this was, in two of them, apparently due to a peculiar arrangement of the vessels.

Anomalous Circulation in the Retina.—Loring (*Archives of Ophthalmology and Otology*, ii., 2) describes three cases of anomalous circulation in the eye. In one case a large venous, in another an arterial branch disappeared suddenly beneath a patch of degenerated tissue in such a way that Loring considered they must form anastomoses with choroidal vessels. In the third case, in which there was a broad rim of choroidal atrophy surrounding the nerve, a vein of considerable size ran toward the nerve, but before reaching its edge made a sharp turn and could be traced directly into what was evidently a choroidal vessel. The illustrations accompanying the article give a better idea of the conditions than any description can do.

Two cases of *Anæsthesia of the Retina,* interesting from their rarity, were narrated in this Journal April 8th ; one by R. H. Derby, one by the reporter.

Strychnia in Amblyopia and Amaurosis.—The subcutaneous injection of strychnia has been employed during the last two or three years in a large variety of affections of the eye attended with defective vision. As is usually the case with any method of treatment, it is chiefly those in whose hands it has appeared to be successful who have written on the subject. Still there is enough evidence in its favor to make it seem advisable to make farther trial of it. Werner (*Berl. Klin. Wochensch.*, 19, 1872) reports the case of a soldier who received a wound of the left lower lid and a small tear of the sclera at the edge of the cornea. Immediate loss of perception of light ensued and continued for five weeks. At this time the pupil was greatly mydriatic, the media normal, the retinal arteries smaller than in the other eye, but otherwise no change in the fundus. The scar in the sclera was not depressed, $\frac{1}{5}''$ in length. There was no irritability of this eye, but the vision of the other had sunk so that large type could not be read. After three injections of strychnia in the temple, in the course of four days, the patient could see small summer-houses on the edge of a hill a mile and a half distant. The mydriasis was still present in slight degree three weeks later.

Cohn's paper (*Wien. Med. Wochensch.*, 13, 1872 ; *Schmidt's Jahrb.*, 5) seems a very fair one. He reports on 50 cases of amblyopia treated with strychnia. These may be divided into two groups. In the first group (32 cases), the ophthalmoscope showed no change of the opticus. Of 16 cases of hypermetropia, with amblyopia, vision either for the near or the distance was improved in all. Of 7 cases of myopia, with amblyopia, in 5 moderate, in 2 no improvement was obtained ; 3 cases of amblyopia, with normal refraction, were much improved, 1 not at all. In cases of amblyopia in drinkers or onanists (of each 2) and in a case of amblyopia following a gunshot wound beneath the skin in the region of the forehead, the strychnia had no effect. The second group includes 18 cases, in which there were evident changes in the nerve. In very few of these was there any improvement, and it would appear as if this were by no means certainly due to the strychnia. The dose was two mgrm., the number of injections at most twenty. No other remedies were used at the same time. In all cases in which the treatment was of benefit, the increase of vision could be observed after the first injection, often in a few minutes. Whether the improvement continued, could only be determined in very few of the patients.

Woinow (*Protocoles de la Soc. des Med. Russes, Ann. d'Oculist,* 5 and 6) from the cases he has treated, arrives at the conclusion that strychnia does not cure chronic diseases of the retina proper, and that it is also without action in cases of amblyopia accompanied by blindness for colors ; in all cases in which its action had been favorable, the patients distinguished colors with great exactness, even though the decrease of vision was quite marked. He injected gr. $\frac{1}{45}$ every three or four days, and gave also extract of nux vomica gr. $\frac{1}{16}$. If any benefit was derived, it was evident within fifteen days.

Bull (*Med. Record*, Aug. 1) gives the carefully detailed report of 12 cases of inflammatory and atrophic changes of the optic nerve and retina, of which six were treated by mercurial inunction and potass. iod., the other six by strychnia subcutaneously. Bull draws the conclusion, from comparison of these cases, that strychnia seems to exert but little influence upon a recent inflammatory process, and here mercury gives the best results ; but in atrophic cases strychnia is of advantage, provided only the disease has not lasted too long.

Chisholm (*Am. Jour. of Med. Sci.* Oct.) has used strychnia extensively the past year, and has found it best to gradually increase the dose until specific symptoms appear, then to continue the same dose. He begins with gr. $\frac{1}{40}$, often has increased to $\frac{1}{4}$ or $\frac{1}{5}$, in one case to gr. $\frac{1}{4}$ daily. It is preferable to give two injections daily ; if only one can be given, pills may also be used, gr. $\frac{1}{40}$, increasing to gr. $\frac{1}{20}$. The place of injection is of no importance. He has seen prompt effect from the remedy in hemeralopia, muscular asthenopia from overwork, recent amblyopia and tobacco amaurosis. In progressive atrophy of the nerve, not dependent on intracranial trouble, it is more satisfactory than any other remedy, and in white atrophy there is sometimes benefit. In amblyopia, with choroidal atrophy (crescents or spotted fundus), permanent improvement of vision has been observed.

Optic Neuritis with Cerebral Disease.—Manz. Inflammation of the Optic Nerve in Diseases of the Brain, *Deutches Archiv f. Klin. Med.* ix. Abstract in *Centralbl.*, No. 27, 1872. Krohn. Two Cases of Neuritis Optici, *Monatsbl. f. Augenh.*, February and

March, 1872. Broadbent. On the Causation and Significance of the Choked Disc in Intracranial Diseases, *Brit. Med. Journal*, June 15, 1872. Rosenbach. A Case of Neuro-retinitis, with Tumor of Brain, *Graefe's Archiv*, xviii., 1. Hirschberg. Engorged Papilla in consequence of Solitary Tubercle in the Cerebellum, *Arch. of Ophthal. and Otol.*, ii., 2. Allbutt. On the Causation and Significance of the Choked Disc in intracranial Diseases, *Brit. Med. Jour.*, April 27, 1872. Optic neuritis, in its connections with intracranial diseases, has excited much interest and been the subject of many observations in the last few years, and the discoveries of Schwalbe, which have been previously referred to, gave a fresh impetus to investigation of the matter, as offering a possible farther means of explanation of the causal relation between the two affections, in some cases, at least. Extension of inflammation or passage of fluid from the intracranial cavity into the lymph-space around the nerve, and consequent compression or serous infiltration of the nerve just behind its entrance into the eye, were theories which immediately arose.

Manz laid the optic nerve bare from above and ligated it at the optic foramen before removing it, in order to prevent the escape of fluid from between the sheaths. He found in diseases of the brain where the intracranial pressure was increased or there was fluid in the arachnoid space, a dropsy of the sheath of the optic nerve was frequently but not always present. The outer sheath was more or less pushed away from the nerve by fluid and bulged out, especially at its junction with the sclerotic. In many cases where the amount of fluid found was small the distention of the sheath showed that it had previously been greater. No hyperæmia of the sheath was observed, and this is evidence against the inflammatory exudation of the fluid at the spot, though it is admitted that in some cases an extension of the inflammatory process from the meninges to the sheath may take place and give rise to local exudation. The dropsy was always found, also, on both sides, though not always alike. In the cases in which choked disc was found, there were always evidences of increased intracranial pressure, as shown by flattened convolutions or distended ventricles, and the amount of intracranial fluid was in relation to the dropsy of the sheath. He believes he has seen the swollen disc recede as the symptoms of pressure have diminished, and become prominent as these symptoms (sopor, &c.) recurred or appeared for the first time. The character of the disease seemed to have no *direct* connection with the production of distention of the sheath. In a case of meningeal hæmorrhage, the sheath of the nerve and the subvaginal space on both sides contained partly-clotted partly-fluid blood, which, in view of the otherwise slight changes in the nerves, could not well have originated on the spot, but must have come from the cranial cavity. That inflammatory hyperplastic conditions may develope out of a dropsy of the sheath is proved by a case of tubercular meningitis in which the lining-cells of the intervaginal meshwork and the inner sheath were greatly increased, and the fibres forming the meshwork covered here and there by a thick, finely-granular protoplasma deposit.

Krohn's first case was that of a boy of 8 years, with choked discs, tumor of brain, and fluid within the ventricles and at the base. An attempt was made to demonstrate the supposed communication of fluid in the sheaths of the nerves with fluid within the skull, by freezing all the parts before examination. The attempt failed, since freezing had not occurred when the parts were opened. The method suggested may, however, prove of some value. The second case, a woman, had carcinomatous degeneration of the ovaries, and choked discs. Here the ocular affection was found due to the existence of tumors, of the same nature as the tumors of the ovaries, and surrounding the nerves behind the eyes. The mass of each tumor was in the subvaginal space close to the globe, but the growth could be traced into the nerve and back between the sheaths as far as the optic foramen. The brain and other organs were normal. This case is extremely interesting, not merely as regards the production of the optic neuritis, but also as regards the question of methods of transmission in the metastasis of malignant growths.

Broadbent relates two cases of double neuritis optici, with tubercular meningitis, in which there was much fluid in the arachnoid cavity, but no choked disc. In one case there was a bulbous expansion of the outer nerve sheath behind the eye on both sides; in the other only on the side on which the neuritis was less. In his experience, some hyperæmia of the disc is common in tubercular meningitis, while well-marked choked disc is rare, though he supposes that bulbous expansion of the nerve sheath is more common in this disease than has been generally believed. He then endeavors to show why fluid in the space between the sheaths should *hinder* the production of choked disc, but his reasoning seems to imply an erroneous idea of the distribution of vessels to the disc and nerve.

Rosenbach describes a case of double optic neuritis, with tumor of the base of the brain pressing upon the optic nerves and chiasma, and with a collection of serum in the ventricles. It is of value from the minute detail of the changes found in the nerve and eye, but throws no special light on the connection between the tumor and the neuritis. The changes were confined to the disc and the retina immediately about it. The rest of the retina was normal, and the nerve in the neighborhood of the eye was but slightly affected. The disc projected sharply into the eye; the increased thickness was caused chiefly by ganglionic enlargement of the nerve fibres; there was also œdema and increase of the connective tissue and small vessels. White patches, seen during life, were due to the alteration of the nerve fibres mentioned; no fatty degeneration was found. The lamina cribrosa was thickened and swollen. Transverse sections of the nerve near its entrance to the eye showed no distention of the subvaginal space.

Hirschberg narrates a case of solitary tubercle of the brain, the size of an apple, with great hydrocephalus, and choked discs.

In the excellent article by Allbutt, the connection between brain disease and neuritis optici is well discussed.

Temporary Blindness after Scarlatina.—Förster (*Jahrb. f. Kinderheilk.*, Hft. 3, 1872) narrates a case of sudden temporary blindness, with albuminuria, following scarlet fever, in a child of 2 years. The child seemed convalescing well, when sudden severe symptoms of Bright's disease came on. The blindness appeared thirty-two days after the eruption, eighteen days after the symptoms of Bright's disease, and while the latter were diminishing; it lasted a few days after the albuminuria had disappeared, sixteen days in all. There was no œdema and no uræmic convulsions. In four cases which Förster found reported, the blindness appeared from fifteen to twenty-six days after the eruption, with albuminuria and convulsions, and lasted from twenty hours to seven days; in all, albumen continued present after blindness had passed off. One case was examined with the ophthalmoscope, with negative result.

It would seem as if these cases were not so very exceptional. A case related by Power, in the *Practitioner* for May, 1871, called out reports of two other cases in the same journal for May, 1872. In the one case, observed by Lente, the blindness appeared twenty-six days after the commencement of the disease, while severe head-symptoms, albuminuria, &c., were present, and vision began to improve after six days. In the other case, albuminuria and dropsy had followed scarlet fever, but both had been absent three or four days, when sudden blindness occurred, with pain in the temples and behind the ears; here sight returned in three days.

Formation of bone in the Retina.—In the Curator's Pathological Report by Nettleship, in the last number of the *Ophthalmic Hospital Reports*, the detailed account is given of the examination of some twenty eyes removed for various injuries or diseases. Perhaps the most interesting of these is an eye lost by inflammation in childhood, nineteen years before, on account of the hitherto undescribed pathological change it presented, the formation of bone in the retina. The cornea was opaque and the degenerated iris adherent to it; the lens absent; the vitreous was fluid and without fibrous webs; the choroid generally atrophied. The retina was everywhere *in situ*. It was much pigmented except near the disc, and the pigment clearly followed the course of the retinal vessels. In the pigmented parts it was much wasted, but in the parts free from pigment the various layers could be made out, except the bacillar, which could nowhere be traced. The pigment epithelium was generally absent near the pigmented parts of the retina. "At one part of the pigmented portion of the retina was a long, narrow patch of bone. It was thin, irregular in outline, and projected on the inner surface of the retina. It was about one-fifth of an inch long, and about half that width. From its borders, spurs or processes of bone passed out into the retina around. A large retinal vessel, containing blood, passed through its middle, and was imbedded in it. Well-formed lacunæ and canaliculi were present in abundance. The bone was irregularly mixed up with patches and lines of pigmented unossified retina, especially at and near its margins."

LENS.

Dislocation of the Lens.—Two interesting cases of spontaneous dislocation of the lens are reported by Schroeter (*Monatsbl. f. Augenh.*, February and March). The patients were a brother and sister, aged, respectively, 39 and 37. In each a very high degree of myopia was rapidly developed; in the man in the course of a single day, in the woman chiefly within three months. Atropine, and in one case, also, calabar bean caused no change in the refraction. Examination showed that the lens was much more convex than natural, that it was displaced forward, pushing the iris before it, and shook on movement of the eye. The zonula was evidently relaxed, but no rupture of its fibres could be made out. Schroeter infers in these cases an atrophy of the ring-fibres of the ciliary muscle and secondary flattening of the ciliary processes with consequent separation of them from the zonula, which would explain the increased convexity and more anterior position of the lens.

New Operations for Cataract.—Liebreich (*St. Thomas's Hospital Reports*); De Wecker (*Annales d'Oculistique*, 3 and 4); Taylor, Bribosia, Warlomont, Streatfield (*Monatsbl. f. Augenh.*, Sept.).—Liebreich makes the section as follows:—"Puncture and counter-puncture are to be made in the sclerotic about one mm. beyond the cornea; the whole remaining incision is to pass with a very slight curve through the cornea, so that the centre of it is about two mm. distant from its margin. This incision may be made upward or downward." Liebreich claims for this operation simplicity and ease of performance, avoidance of the necessity of an iridectomy, and excellent results.

De Wecker has modified Graefe's operation. Puncture and counter-puncture lie one mm. outside of the sclero-corneal border and two mm. below a horizontal line drawn through the superior edge of the cornea; the summit of the section is at the upper border of the cornea. This gives a somewhat longer wound than Graefe's method, which de W. thinks an advantage. He also uses a pair of curved iridectomy forceps, which at the extremity of the convex surface of each arm carries a small triangular cutting point, to divide, and at the same time remove a portion of the capsule.

Taylor makes an incision about $2'''$ long at the upper sclero-corneal junction, cuts out a bit of iris as near as possible to the periphery, widens the corneal wound sufficiently, enlarges the opening in the iris by cutting it away from its attachment with scissors, and extracts the lens through the opening in the iris.

Bribosia first opens the lens capsule with a needle, then makes Graefe's section, allowing the aqueous to flow out as soon as puncture and counter-puncture are made, so that the iris falls in front of the knife and is cut away in finishing the cut.

Warlomont describes the method of Le Brun. The puncture and counter-puncture are in the horizontal diameter of the cornea, close to the scleral edge; the highest point of the flap is opposite the upper edge of the pupil.

Streatfield employs a triangular knife with only one cutting edge, makes no counter-puncture, but thrusts the knife through the cornea till it can be seen in the anterior chamber, and then pushes it along sidewise to complete the incision.

Refraction and Accommodation.

The Eyes of the Pupils of the Royal Friedrich's Gymnasium and their Changes in the course of $1\frac{1}{2}$ *Years.* Cohn (*Jahresber. d. k. F. G. Zu Breslau*, 1872).—Cohn's investigations form an important contribution to the subject of progressive and acquired myopia. The following is taken from an abstract of his paper in *Schmidt's Jahrb.*

At the first examination, of 361 pupils, 125 (35 per cent.) were shortsighted, 25 (7 per cent.) oversighted, and 24 (7 per cent.) suffered from other affections of the eyes; only a little more than half, 187, (52 per cent.) were normal-sighted. From the lower to the higher classes a continuous increase of myopia was shown, since of the pupils from 6 to 10 years of age, 12 per cent., from 11 to 15 years, 37 per cent., from 16 to 22 years, 60 per cent., were myopic. The degrees of myopia were in nearly $\frac{1}{4}$ of the cases slight, $\frac{1}{60}$ to $\frac{1}{36}$, and this had generally escaped the notice of the individuals themselves; nearly $\frac{1}{2}$ were myopic $\frac{1}{36}$ to $\frac{1}{16}$; another $\frac{1}{4}$ from $\frac{1}{15}$ to $\frac{1}{8}$, and 6 pupils from $\frac{1}{8}$ to $\frac{1}{4}$. The higher the class the more were the cases of great myopia. Thus in the 7th class there was no myopia greater than $\frac{1}{24}$, in the 6th (with a single exception), none greater than $\frac{1}{12}$, in the 5th and 4th none greater than $\frac{1}{8}$. Acuteness of vision among 125 myopes was in 110 normal; with suitable glasses they could read at the same distance as the normal-sighted. Only 15 myopes had an amount of vision below the normal standard; in 12 of these, $V = \frac{2}{3}$, in 2, $V = \frac{1}{2}$, and only one pupil, with great congenital myopia, had less vision than this. A posterior staphyloma could not be discovered in myopes under 10 years, but the proportional frequency of its occurrence increased afterwards with the age. It is interesting to note the statement, though not a new one, that the posterior staphyloma had no definite relation to the amount of the myopia; both broad and narrow crescents appeared as well in the high as in the low degrees. As to hereditary tendency 41 of the myopes stated that one or both parents were shortsighted. This number, resting simply on the observation of the children themselves, is, perhaps, likely to have been rather below the truth; and for the same reason another remark, viz., that of the 41 in whom hereditary predisposition seemed to have an influence, 36 had had measles, while of the whole 125 myopes only 86 stated they had measles, is of little value; moreover, it does not appear how great a proportion of the normal-sighted had also had measles or other of the diseases of childhood. At the examination made a year and a half later, it appeared that (after striking out all those who had in the meantime left the school and could not be again examined) of 74 emmetropes, 70 were still normal-sighted, while 14 had become shortsighted in degrees varying from $\frac{1}{50}$ to $\frac{1}{20}$. Of 54 previously shortsighted, 25 remained myopic of the same degree, in 28 the myopia had increased. The average myopia of these 28 had progressed from $\frac{1}{20}$ to $\frac{1}{14}$, and the tendency to progression was specially evident in the medium and higher degrees of myopia. The vision had, in most, remained the same; in 4 only had it diminished, while in one case it had even improved. The staphylomata formerly observed had not importantly changed; among those pupils before emmetropic, but now myopic, no staphyloma was noticed; on the other hand, in some previously myopic, but without staphyloma, a staphyloma could now be seen.

From a brief abstract in the *Annales d'Oculist.*, 5 and 6, 1872, of the investigations of Maklakoff (*Soc. Phys. Med. de Moscou*, 1871) on the eyes of 759 school-children, we learn that he confirmed the previous observations of Cohn and others that the number of myopes as well as the degree of myopia was greater in the more advanced classes. It is stated, also, that he repeated his examinations at the interval of a year, but no comparison of the results obtained is given.

Traumatic Spasm of Accommodation.—Just reports, in the *Monatsbl. f. Augenh.*, a case of spasm of the ciliary muscle in a soldier, excited by a scratch of the upper eyelid by a bullet. The man could see in the distance only with a strong concave glass, but the use of atropine reduced the apparent myopia to $\frac{1}{48}$. Just believes this to be a unique case; the usual and not uncommon result of a blow on the globe being paralysis of the accommodation.

MUSCLES.

Oculo-Motor Paralysis in Acute Rheumatism.—Michel (*Monatsbl. f. Augenh.*, May) reports the following interesting case. A soldier entered the hospital with symptoms pointing to a meningitis; these symptoms increased, and four days afterward a paralysis of one oculo-motorius, with hyperæmia of the corresponding opticus, appeared to strengthen the diagnosis. The following day, however, the general symptoms began to diminish, and three days later acute articular rheumatism set in and ran a regular course, while the paralysis of the oculo-motorius rapidly disappeared.

A valuable paper on the modern operation for strabismus was read by Loring before the New York Academy of Medicine, March 7th last. The paper and the discussion which followed it were published in the *Medical Record*, April 15th.

SYMPATHETIC OPHTHALMIA.

Cohn has published, in quarto form and with illustrations, a detailed account of 33 cases of gun-shot wounds, involving the eye, which came under his observation during and immediately following the last Franco-Prussian war. These are of much value considering the comparatively few carefully observed cases of gun-shot injuries of the eye which have been reported. One case is of particular importance in connection with the at present generally received notions concerning the production of sympathetic ophthalmia.

A fragment of bomb-shell wounded a soldier on the right upper eyelid and brow, and caused partial blindness of the right eye. Five months later, the only change to be observed was a dark, prominent spot in the region of the macula, with a yellowish-white streak running from either side of it. The function of the left eye was perfectly normal. A month later, the vision of the left eye had much diminished and there were subjective flashes of light in it. The only change was a paleness of the papilla and thinness of the vessels. The right eye was enucleated, and vision soon became again normal in the left. Microscopic examination of the injured eye showed only a projecting fold of the retina in the region of the macula and remains of former hæmorrhage in front and behind it. The iris and ciliary body as well as all other parts of the eye were normal.

Death following Enucleation.

Just (*Monatsbl. f. Augenh.*, July and Aug.) narrates a case of death, with symptoms of meningitis, following enucleation of an eye. The patient was 63 years old. There was sympathetic irido-cyclitis of the right eye; the sight of the left eye had been lost from an injury three months before, and there appeared to have been panophthalmitis, with perforation of the cornea; it was still very painful to touch, and the conjunctiva was darkly congested and swollen. The injured eye was enucleated, in the hope of benefitting the other. All went well for ten days, except that rather more suppuration occurred than usual, and the right eye meanwhile improved. Then headache, delirium, sopor, and death forty-eight hours after the first symptoms appeared.*

Medical and Surgical Journal.

Boston: Thursday, November 14, 1872.

THE HORSE EPIDEMIC.

The recent epidemic of influenza among the horses, exerting, as it did, so marked an impression on all classes of the community, becomes a matter of general interest to the medical profession; as a subject of scientific interest, it suggests topics of thought to accurate observers in our own ranks, and, from the large experience which may be collected throughout the country, should lead to deductions of value.

The rapidity of access which the disease manifested, its probable origin and nature, the question whether it is a self-limited disease, or whether it will yield in any degree to treatment, the course of the disease and its symptoms as affected by various causes, the influence exerted by elevation, by the state of the air, by temperature and moisture, its analogy to similar diseases in the human species, the consideration of the question whether or no the epidemic may be the forerunner of similar epidemics in other domestic animals or in man, or whether it may be the harbinger of cholera as suggested by medical writers—all these, and a score of other questions are of importance at the present day, and will naturally suggest themselves to medical men and other members of the community.

The physician who naturally felt a ready sympathy with the four-footed comrade of his daily routine, who found himself obliged to tramp many a weary mile in place of riding, to visit his sick patients only, or to see them *in sections*, will gladly note his observations in assistance of our excellent Secretary of the State Board of Health in his endeavor to investigate the epidemic. In his recent letter in the public press he calls attention to the disease, and asks that the condition of the air and other possible exciting causes may be noted, together with other facts which may be thought to have a bearing on the subject. We are confident that medical men will gladly lend their aid to an investigation which promises to be of so much value to the community, both lay and medical.

Letter from the Surgeon General of Massachusetts.—The letter of Dr. Dale, which we publish below, will commend itself to the attention of every right-minded member of the profession.

Boston, Nov. 4th, 1872.

Messrs. Editors,—The daily papers make mention of the appointment of Dr. Ira B. Cushing, of Taunton, as Assistant Surgeon, 3d Reg't, Mass. Vol's.

As a subordinate of the Commander-in-Chief it would be a breach of military etiquette for me to make any comments upon this appointment.

Precedent has always given the Surgeon of a Command the right to nominate his assistant.

His Excellency, the Commander-in-Chief, in consideration of this precedent, directed that a commission should be issued to the above gentleman.

So far as any responsibility is placed upon me I shall hereafter, as I have heretofore, steadily set my face against heretical medical opinions.

I have the honor to remain very respectfully yours, Wm. J. Dale,
Surgeon General.

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* Writers of papers on Ophthalmology will contribute much assistance in the preparation of the semi-annual reports in this department if they will forward copies of their papers, addressed to this Journal.—Eds.

From British Journals.

On the Detection of Bullets.—M. Legouest (*Med. Times and Gazette*, Sept. 21st, 1872), on the occasion of a report for ascertaining the nature of metallic bodies retained in gun-shot wounds, made some interesting observations before the Académie de Médecine on the general subjects of detecting and removing such foreign bodies. He urged the necessity of attending to the old rule of placing the patient, as nearly as possible, in the position which he occupied when he received the injury.

Having referred to the various instruments, such as Nélaton's and other probes, he showed to the Academy his own simple mode for detecting the foreign body, when composed of lead. For this he uses the stem of the common clay pipe, which every soldier has about him. Having passed the pipe-stem down to the bullet, he turns it round and rubs it on the foreign body, which colors the clay black, and even causes it to bring out particles of the metal. He is then able to make traces with it on paper, as with a pencil, and, having damped these first with vinegar, and then with a solution of iodide of potassium, he produces the fine yellow color characterizing the iodide of lead.

Movable Kidneys (*Med. Times and Gazette*, Sept. 21st, 1872).—Dr. Jago, in 1858, reported in the same journal "two cases of supposed movable kidney." To ascertain how far his diagnosis that these movable abdominal bodies were harmless might be justified by the future, he has recently made inquiries about the patients. The first rejoined her husband in Australia several years after the above date, and it is not improbable that she is still living. The other, though still carrying the "tumor," was a few months since in wonderful health and spirits, and almost oblivious of the movable body whose presence she had herself detected twenty-three years ago, and which, at that time, caused her much mental distress.

Dr. Jago, in his recent report, relates two more cases of this anomaly. "To sum up," says he, "the four examples of movable kidney I have met with: All the patients were women, and the organ always the right. The first case was complicated by excoriated os uteri and irritability of the bladder, which was exaggerated by pushing the kidney downwards; the third with menorrhagia and leucorrhœa. There were signs, symptoms, or history which raised the question of malignant disease in the first, second and fourth cases. The second and fourth cases were victims of hysteria."

The Combination of the Subcutaneous Injection of Morphia with the Administration of Chloroform (*Med. Times and Gazette*, Sept. 21, 1872).—At a recent meeting of the Académie des Sciences, M. Demarquay read a paper on the above practice. This procedure has several times been resorted to in consequence of M. Claude Bernard's experiments having shown that in this way the anæsthetic condition can be kept up by the employment of a much less quantity of chloroform. According to M. Demarquay's own clinical observation, as well as the results of his experiments on animals, this practice, so far from diminishing, may add to the dangers of chloroform, especially when the patient is already in a depressed condition from hæmorrhage, shock, &c. He states that either of these agents used separately produces a depression of temperature; and by using the two together, he has obtained a reduction of 2½° C. He is of opinion that the combination should be entirely renounced.

The Medical Department of Prussia has recently ordered that every dispenser shall write his name on the prescription, no matter how often the prescription is repeated. The *Chemist and Druggist* says this sounds very well, but many (of course they are very stupid not to agree with the Medical Department) do not feel much interest in such a collection of autographs, and strongly object to it. Now, what is the unhappy pharmacist to do in this calamity? On one side the stubborn customer, who positively refuses to see his prescription converted into a public ground for all sorts of handwritings, on the other side the plain and strict order of the governing authority, that threatens each offender with a heavy fine. —*Med. Press and Circular.*

Mr. Walter Thompson, London, has sent to the committee for securing a complete medical education for women in Edinburgh a cheque for £500, being the first moiety of £1,000 promised by him.

From American Journals.

Emphysema of the Liver occurring in a Case of Typhoid Fever.—Dr. J. Forsyth Meigs (*Philadelphia Med. Times*, Oct. 5th, 1872) gives a clinical lecture on the above obscure and rare complication. Besides such lesions as are often found in a case of typhoid fever, the autopsy revealed a liver much enlarged (one-third), of a dirty brownish yellow color. Tissue everywhere crepitant, light and spongy. Cohesion greatly lessened, so that the finger could be readily thrust in, making a ragged hole. Pieces cut off and thrown into water floated exactly like lung, and as lightly. Tissue singularly cribriform, exhibiting innumerable small cavities, like the cells of the lungs. No large cavities in this organ. On pressure, much dirty, frothy, thin liquid escaped, which looked like ichor, but not like pus. Microscopic examination showed the liver to be very fatty, cells broken up and disintegrated; scarcely any of full size and natural character. Fat in large drops scattered over the field, and the broken, small coagulated and irregular cells, all containing much fat in minute refracting points.

In this case there was no emphysema of the neck, and it was difficult to suppose that the singular cribriform and spongy character of the liver, which depended on the formation in the tissue of the gland of innumerable small open spaces, filled with gas or air, so that the liver looked like lung tissue, or like a very delicate honeycomb, could have all been produced in the eleven hours and a half which intervened between death and the autopsy. There was no decomposition of the tissues in other parts of the body, and there was no putrefactive process going on in the kidneys, which were also emphysematous, though to a much less extent than the liver.

Dr. Meigs thinks that Frerichs probably gives the best account of the nature of this singular lesion and quotes him as follows: The cause of this peculiar development of gas in the liver, is obscure, and the nature of the gas is unknown. We are not, in my opinion, warranted in assuming, with Piorry, that the intestinal gas reaches the liver through the eroded roots of the portal vein. It is more probable that the affection ought to be regarded as a local process of disintegration, and that it originates, under certain circumstances, in those complicated metamorphoses of matter which occur in the liver from the presence of large quantities of the carbo-hydrogens. Whether emphysema of the liver may, as Louis and Piorry believe they have proved, exist during life, and be diagnosticated from the disappearance of the hepatic dulness, can only be satisfactorily determined by further observations.

The Prevention of Excessive Infant Mortality.—Dr. Henry Hartshorne writes to the Philadelphia *Medical Times* of Sept. 16th, 1872, on this subject. It is well known by physicians that the summer is in our large cities fatal to infants beyond any other season. A single week this summer produced a death-list of 1569 in New York, and the next, of 852 in Philadelphia—in each instance more than double the weekly mortality of the year; the excess being almost altogether due to diarrhœal "diseases" and other affections of young children. Epidemic cholera in 1866 caused 900 deaths in Philadelphia. This number of victims was exceeded in a single month this year by the deaths in our city from cholera infantum and diarrhœa, in children under five years of age.

A practical question is how to prevent this excessive mortality. Dr. H. has a suggestion growing out of the results of the frequent rural and aquatic excursions for the children of the poor, which have been made during the past summer. Of 350 infants in arms upon one of these occasions, a physician remarked that "*two-thirds were ill.*" The benefit to many of these was immediate and marked.

This is, however, but a beginning of what is needed. "If it were practicable to *transport to the country*, at the beginning of hot weather, large numbers of infants, with their mothers (the same class as the excursionists), it is certain that the amount of illness and death would be greatly diminished. Why cannot this be done?"

The writer suggests that the elevated portions of the public parks, or of places more remote, could be used as localities; that large *tents*, as army *hospital tents*, would do for habitations. The services of a small number of matrons, stewards, physicians and nurses would be required; of the last named but few would be needed, as the mothers would be able to furnish nearly if not quite all such service. A proper selection of the recipients of this charity, limiting the age of the children to not over three years, would be necessary. Dr. H. doubts whether the expense of several such camps well administered would greatly exceed that of the children's free excursions; while the permanent benefit afforded must be many times greater.

Medical Miscellany.

UNDER FIRE.—Our distant friends will be glad to learn that the office of the JOURNAL escaped the devouring element in the dreadful catastrophe which has come upon our city. The flames which destroyed the offices of our neighbors, the *Evening Transcript*, the *Saturday Gazette* and the *Boston Pilot*, were arrested within a comparatively short distance of us, and we are able to continue our publication without interruption. Unlike the fire in Chicago, which destroyed the houses and the personal property of medical men in common with others, the conflagration here was confined to the business portions of our city, and one only of our medical brethren has been driven from his home.

The kindly expressions of interest which have reached us from near and distant parts of the country show that the misfortune has awakened the sympathy of many warm hearts. For this the medical men, in common with other classes of our community, cannot fail to be deeply grateful. EDS.

AT Constantinople, the Government have determined that instruction in the Imperial School of Medicine shall be given in Turkish, and have removed all the professors who cannot speak the national language.

WHOOPING COUGH and pneumonia are prevalent in Littleton, New Hampshire.

BENNINGTON, Vermont, has a severe visitation of typhoid fever and measles.

MEASLES and whooping cough are prevailing extensively in Vershire, Vt., and the adjoining towns. The two diseases accompany or follow each other, and in some cases almost entire families have been prostrated at once. There have also been a few cases of typhoid fever.

A BALTIMORE doctor rides in a buggy drawn by two lively negroes, since his horse has been an invalid.

DR. PROSPER K. HUTCHINSON, for many years a distinguished physician at Coventry, Rhode Island, died on Friday, aged 55 years. He was surgeon in the twelfth regiment.

THE Medical Society of London held its centenary session on the 21st ultimo.

THE Medical Society of London, offers the prize of the Fothergillian gold medal for 1873, of the value of twenty guineas, for the best essay on cancer. The subject for 1874 is the therapeutic means for the relief of pain. The prize is open for universal competition. Essays, *not in the handwriting of the author*, must be forwarded to the Society's rooms on or before the first of November next preceding the 8th of March in the years 1873 and 1874 respectively.

PROF. LAW ON THE HORSE DISEASE.—At a lecture on natural science at Cooper Institute, New York, by Prof. Law, of the Cornell University, the lecturer showed that the present epidemic was no new disease—records existing of its appearance in Greece nearly five hundred years before the Christian era—and was simply the influenza. He then described the symptoms and many of the subsequent consequences, showing that all cases could not be treated alike. He traced the course of the present epidemic, and clearly demonstrated that it did not travel in any special direction, and that in this, as in all other previous visitations, neither season, temperatere, volcanic, electrical or atmospheric effects had anything to do with it.

HEAVIEST RECORDED BRAIN.—Dr. James Morris gives the report of an autopsy made at the University College Hospital, London, of a bricklayer, aged 38, in whom the brain was found to exceed sixty-seven ounces in weight.

PAMPHLETS RECEIVED.—Normal Ovariotory. By Robert Battey, M.D. Rome, Geo. Atlanta: 1872, pp. 18.—Proceedings of the Pathological Society of Philadelphia. Vol. III. Philadelphia. 1870. Pp. 200.—Half Hour Recreations in Popular Science. No. 5. Nebulæ Comets, Meteoric Showers, and the revelation of the Spectroscope regarding them. By Prof. H. Schellen and others. Boston: Estes & Lauriat. Pp. 190.—On a New Method of Extraction of Cataract. By R. Liebrich. Philadelphia. 1873.

Deaths in fourteen Cities and Towns of Massachusetts, for the week ending Nov. 2, 1872.

Cities and Towns.	*No. of Deaths.*
Boston	133
Charlestown	13
Worcester	13
Lowell	12
Chelsea	4
Cambridge	21
Salem	10
Lawrence	8
Springfield	10
Lynn	5
Gloucester	4
Fitchburg	6
Newburyport	7
Haverhill	6
	252

Prevalent Diseases.	
Consumption	38
Pneumonia	23
Typhoid Fever	16
Scarlet Fever	10

Twenty deaths from smallpox are reported; sixteen in Boston, two in Charlestown, and two in Cambridge.

GEORGE DERBY, M.D.,
Secretary of State Board of Health

DEATHS IN BOSTON for the week ending Saturday. November 9th, 162. Males, 90; females, 72. Accident, 3, apoplexy, 6—ashma, 1—bowels, dis. of, 1—bronchitis, 7—inflammation of the brain, 3—congestion of the brain, 1—disease of the brain, 7—burned, 2—cancer, 3—cholera infantum, 4—cerebro-spinal meningitis, 2—consumption, 23—convulsions, 6—croup, 1—dropsy, 1—dropsy of brain, 1—dysentery, 2—erysipelas, 1—typhoid fever, 8—disease of the heart, 5—hæmorrhage, 1—homicide, 1—disease of the kidneys, 4—jaundice, 1—disease of the liver, 4—congestion of the lungs, 1—inflammation of the lungs, 6—marasmus, 8—measles, 3—old age, 3—pleurisy, 2—pyaemia, 1—purpura hæmorrhagica, 1—suicide, 1—smallpox, 31—scalded 1—teething, 1—whooping cough, 1—unknown, 3.

Under 5 years of age, 53—between 5 and 20 years, 17—between 20 and 40 years, 46—between 40 and 60 years, 29—above 60 years, 17. Born in the United States, 103—Ireland, 38——other places, 21.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

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Original Communications.

A CASE OF DISLOCATION OF THE SPINE.

Reported by W. P. Bolles, M.D. Harv.

The following case was treated in the Boston City Hospital, under the care of Dr. Thaxter, the writer assisting him at the time as house-officer. It is interesting on account of the long time during which the patient lived, the definiteness of his symptoms and their regular progress toward death; and it is also not a little remarkable that so extensive and permanent a displacement should occur in the lower part of the cervical region, where the articular surfaces are very oblique, without a fracture of either of the bones involved.

At 1 o'clock, August 29th, 1871, I. F. W., an American painter, 22 years old, by the giving way of a staging he was standing on, fell backward across the smooth top rail of an iron fence, and then to the ground, about fifteen feet in all. He struck the fence crosswise with the back of his shoulders. "He immediately got up without assistance and walked a few steps, but then was only prevented from falling by the support of those around him." From the place of the accident he was carried about two miles to his home in South Boston, and visited by Dr. Thaxter, who found him with unequal pupils and a pulse of 48; otherwise as told below. After catheterizing, the doctor sent him to the hospital, which he reached at about half-past six in the afternoon, in good mental state (there had been no loss of consciousness), but completely paralyzed below a line running each way from the space below the "seventh" (or probably the sixth) cervical vertebra downward and outward around the lower half of each scapula, thence upward to the axillæ, and forward and inward to the upper end of the sternum. There was loss of sensation over parts of both arms, but there was little if any impairment of their motions. The seventh (?) cervical vertebra was tender, but no deformity could be found. Pulse 68. Sphincter ani partially relaxed. Patient complained of severe pain across the shoulders.

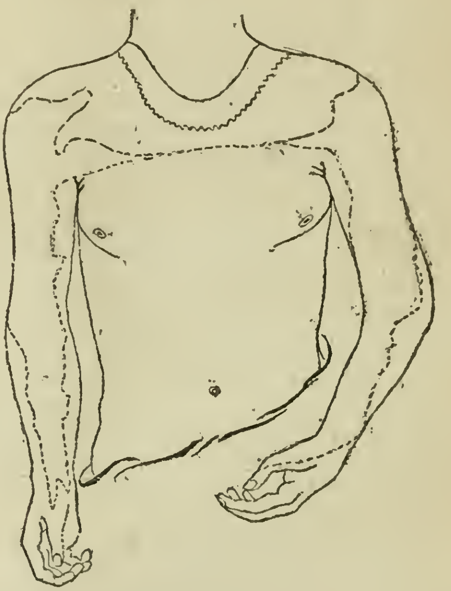

Fig. 1.—Outline showing the border of the paralyzed portion on the different days, thus, Aug. 30th, - - - - - -; Sept. 1st., — — — —; Sept. 2d, A.M., 〰〰; just before death, ————.

During the night, he slept ill on account of the pain just mentioned, which was only partly relieved by an opiate with bromide of potassium. On the next day, he was carefully examined with the æsthesiometer; the line of paralysis was very distinct, and in most places could be determined within a quarter of an inch. It had changed somewhat since entrance, and then ran as follows: From the sterno-clavicular articulation to the front of the axillæ down the front of each arm and forearm to the thumb, up again on their outer surfaces to the deltoid, and then behind the shoulder; nearly alike on each side, but slightly lower on the left. The body was marked with ink, and a diagram made for this and successive days (see line ....).

There was no action whatever of the thoracic respiratory muscles, but the diaphragm contracted regularly and powerfully, and, with the assistance of the neck, in raising the clavicles and upper ribs a little, performed the whole of the respiratory movement without discomfort to the patient. Coughing was nearly impossible. He could not move any of his fingers nor flex the wrist, or pronate the hand, but could extend and supinate it, by means of the supinator longus and extensor carpi radialis longior, which were the only muscles of the forearm that could be felt to move. Right arm slightly the weaker. The muscles above the elbows still retained their power but little impaired. Thus all the nerves of the brachial plexus were paralyzed at this time, except the musculo-spiral, musculo-cutaneous and circumflex, whose disposition to the muscles and surface was accurately shown by the parts uninjured; these nerves, it will be remembered, arise, in part or wholly, from the fifth and sixth cervical, which have the spinal canal above the sixth vertebra, while the paralyzed ones come as distinctly from below it. Pulse 72–80. Temperature 104°. Appetite fair. He got croton oil and sulphate of morphia p. r. n.

On the 31st, he slept tolerably well, the pain continuing as before, but intermittent and not very severe. The line of paralysis was higher; there was no motion in the forearms and scarcely any in the right arm; the left was impaired. Childish.

Next day, the paralyzed portion had advanced to the shoulders (see line — — — — — — —). The pupils were contracted and not responsive to light. The patient was moderately delirious during the night, but rational at the time of the visit, and childish. Annoyed by itching of the face. The skin was cool, tongue coated, dry along the middle; respiration diaphragmatic, strong and regular like that of one asleep.

Sept. 2d.—The pain as before was partly relieved by a full opiate, and he slept pretty well until 5 o'clock this morning, when the power of the diaphragm became impaired and respiration labored. At the visit (8 o'clock A.M.) this muscle was working very feebly, and the sterno-mastoid, scaleni and others of the neck, accomplished most of the breathing movement, raising the upper ribs a little by means of the weight of the head. Respiration irregular, about thirty times a minute. Each inspiration was performed with a distinct, voluntary and tiresome effort; the head lifted from the pillow with every contraction, and then dropped back again. The countenance was very anxious; patient rational, in great distress, begging for air, and calling on all to help him. Pulse 76, and good. Paralyzed line at clavicles (∿∿∿∿∿).

At noon, the diaphragm was motionless; respiration was performed entirely by the muscles of the neck, and the head lifted and dropped with each effort. The patient was getting very tired; was rational and could speak plainly with some difficulty, but could swallow readily. Paralyzed border encircling the neck (————————).

His consciousness and special senses remained until the last; during the next few hours his face became livid from slow suffocation, and, finally, he died without spasm at 4 o'clock—worn out by the efforts of breathing.

There was almost no medication besides what is mentioned above; the bowels moved freely and unconsciously, after taking the croton oil. The catheter was used twice a day.

The autopsy was made by Dr. S. G. Webber, and the following is a synopsis of it: "Sixteen hours after death. The lungs have a mottled appearance, more or less adherent, and are full of fluid; not unusually discolored with blood. Heart normal, walls very firm. Blood fluid, excepting a small clot in the right ventricle. Branches of the hepatic vein full.

"Spleen, liver and kidneys congested, the former firmer than usual, otherwise normal.

"Fifth cervical vertebra dislocated forward nearly one-fourth of an inch from the sixth.

"There was effusion of blood under the dura mater at the level of the seventh cervical and first and second dorsal vertebræ, but not enough to compress the cord or nerves.

"At the level of the dislocation, the canal was narrowed to about three-sixteenths of an inch. At this point the cord was entirely diffluent, and was considerably softened, also, from the third to the eighth bones, but beyond these points the degeneration could not be certainly determined."

There was no microscopical examination.

The fourth, fifth and sixth vertebræ were removed and preserved in the hospital cabinet, and after a careful dissection of them, the following description and accompanying drawing have been made.

The fifth vertebra was dislocated forward from its position on the sixth about one-half the diameter of its body, both inferior articulating processes of this bone having leaped over the adjoining processes of the other without fracture of either. The anterior common ligament was entirely torn across, and the posterior common hung together by a few shreds only, and was peeled off from its attachment to the fifth body; of the ligamentum subflavum, only a narrow band remained on the left side. The intervertebral substance was torn chiefly from the fifth, but partly from the other, so as not to hold them together at all. The two capsular ligaments were ruptured in front and behind, but their lateral portions were more or less entire, and held the bones firmly in their new position. Both bones were whole and uninjured, except where the periosteum was peeled back from the anterior surface of the left inferior process of the fifth vertebra at the place of origin of the capsular ligament. Here, three or four gritty particles like fine sand, and not thicker than paper, were torn away with the soft tissues, and left this aspect of the bone a little rough, but did not affect its shape or the mechanism of the dislocation in the slightest degree.

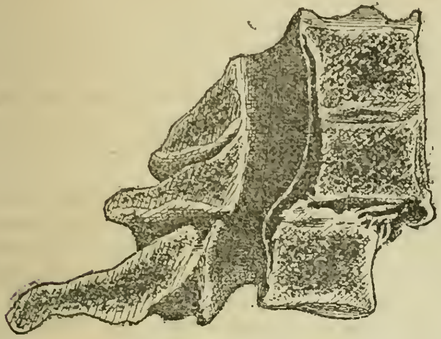

Fig. 2.—Section of the specimen; left half showing contraction of canal, rupture of ligaments, &c.

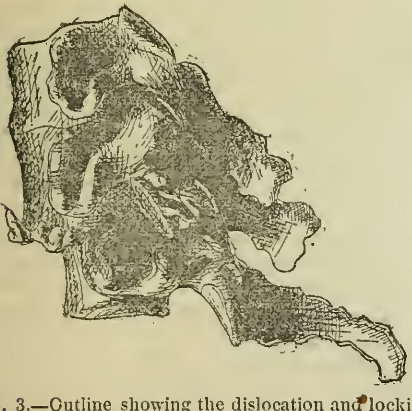

Fig. 3.—Outline showing the dislocation and locking of the articular processes and condition of the capsular ligament. There is no essential difference between the two sides.

The spinous process of the sixth bone was long, and seemed longer by the recession of the one above. It was, undoubtedly, the one considered to be the vertebra prominens in the examination before death, so that what was the real deformity of the accident was overlooked as the natural projection of that bone.

Stoughton St., Sept., 1872.

AGORAPHOBIA.

By Edward T. Williams, M.D.

In the Journal of the 31st ult. is published an account of a case of "Agoraphobia," a name invented by Westphal, of the Berlin Charité, to designate a peculiar disorder in which a dread of crossing streets and squares forms one of the prominent symptoms. Notwithstanding this distinguished authority, I take the freedom of dissenting from the implied position of the Journal writer in ranking agoraphobia as a distinct affection or even symptom, and to consider it simply as a form of vertigo combined with nervousness and apprehension, all of them symptoms of the commonest occurrence in a large proportion of cases of nervous disease.

Reviewing the symptoms of Dr. Webber's case, the tightness and heaviness of the head, the dizziness on stooping, the impairment of recollection, the apprehension and melancholy, the muscular weakness, prickling and formication in the left leg and side, the startings and pain in the left leg, the neuralgic pains in the left shoulder, face and head, with the history of convulsions, self-abuse, syphilis and hard drinking, we find every probable indication of some chronic lesion in the right half of the brain, either congestion, softening, sclerosis or syphilitic deposit. As to the agoraphobia, it should be noticed that the peculiar feeling of dread was not experienced solely in crossing the street, but in crossing a bridge or a plank placed over a brook, in looking out of a window, in watching persons at work on a steeple or building, and at the handling of rats and mice, a symptom suspiciously suggestive of delirium tremens.

The following is a brief summary of the three cases of Westphal, from his paper on *Agoraphobia* in the *Archiv für Psychiatrie*, iii. 1.

The first was a man 32 years of age, a frequenter of brothels and cafés, and a frequent sufferer from gonorrhœa; he was well acquainted with the sensation of vertigo, and experienced it on ascending spires, &c.; had occasional attacks of hemiopia and temporary blindness, preceded by scintillations of light before the eyes; his hand trembled habitually when extended; he was accustomed to a sort of panic (angst), coming over him suddenly, sometimes when crossing the street, sometimes on the sidewalk, especially at night, sometimes at the theatre or in church; it was accompanied by a flushing of the face and a trembling all over. The case was evidently an incipient congestion of the brain.

The second case was a young man of 24, belonging to a family of marked talent and peculiar nervous susceptibility; the great-grandfather was a cataleptic; the grandfather, father, three members of the father's family, and the patient's own brothers and sisters were all subject to severe headaches, with flashes of light before the eyes, hemiopia, &c. The patient himself, when a child, had suffered in the same way, and since the age of 14, had been subject to occasional epileptic fits with headache, and tenderness on pressure over the left eyebrow at the point of exit of the supraorbital nerve; had frightened spells, like the last patient, ushered in by a sensation of warmth, beginning in the abdomen and rising into the head, accompanied by mental confusion, palpitation of the heart and general tremor. These attacks occur when crossing a street or square, in unfamiliar streets at a distance from home, on Sundays when the shops are shut, when riding in public carriages or omnibuses, and at theatres and concerts, in short, in all large halls where numbers of people are assembled together. These paroxysms are evidently epileptoid and caused by cerebral congestion. It will be seen that the paroxysms, as in the previous cases, take place under various circumstances besides when crossing the street.

The third patient was an engineer, 26 years of age; has a sister supposed to be epileptic; was subject when a child to occasional spasms affecting the right arm, and at a later period had two attacks of convulsions; is subject to vertigo and to sudden frights, commencing with a feeling of oppression about the heart, a heat and redness in the face, and an apparent sinking of the ground from under his feet, followed on the next day by a feeling of depression and fatigue. The spells occur on crossing a square, but are less severe if he has a cane or umbrella to bear upon, or a lamp-post in the middle to rest by; he dreads passing an unbroken row of houses or walking where the streets are empty, as on Sundays. The first attack occurred suddenly, about the age of 16, after listening to a fatiguing scientific lecture; at 20, he suffered from peculiar sensations in the back of the head, preceded by a feeling of warmth mounting from the feet to the head. He had read many medical works on Insanity, and fancied he was becoming deranged. This case, like the last, seems to be epileptiform in character, and dependent on congestion of the brain, caused by over-study. The existence of a well-marked aura deserves to be noticed in both cases.

Of these patients, the last of Westphal's is distinctly asserted to have been subject to vertigo; the first was well acquainted with the sensation and experienced it in ascending spires; Dr. Webber's patient had dizziness on stooping; while case second, of Westphal, though vaguely stated, is clearly said to have been acquainted with the sensation, a knowledge he could hardly have obtained except from personal experience. They all had a dread of crossing squares (agoraphobia), and a similar dread under certain other circumstances, to which, for consistency, appropriate classical terms ought equally to have been applied, as ecclesiaphobia, &c. However, confining himself to agoraphobia, Westphal, as if anticipating the self-evident objection to his views, goes into a labored argument to prove that it is something different from vertigo, because one is a mere dizziness (schwindgefühl), while the other is a feeling of fear (angstgefühl). Now fear is one of the commonest emotions of the human mind, even in health. It is habitual with certain temperaments. It is especially frequent in irritable states of the nervous system with an overloaded brain. Certain diseases, as epilepsy, delirium tremens, hydrophobia, &c., are particularly characterized by it, and out of the four cases described, the paroxysms in two were decidedly epileptiform, while another, who had previously had fits, was a confirmed drunkard, with a probable tendency to delirium tremens. Finally, fear often coëxists with ordinary vertigo, and constitutes its chief symptom. Hence, its pathognomonic importance is slight.

The explanation of agoraphobia, as I view it, is extremely simple. A person attacked with vertigo naturally seizes hold of the nearest object for support; a person subject to such attacks loses confidence in his power to walk alone, and feels unsafe without something at hand to cling to in case of emergency; he has the same feeling in crossing a square that other men do in standing on the edge of a precipice, there is danger of being run over; add to this a state of nervous irritability amounting almost to insanity, and the pathogenesis is clear.

I speak from some degree of personal experience, having been a subject to vertigo for nearly three years. I have often had feelings of uneasiness in crossing an open square, in passing a vacant lot, or in going over a bridge. The same is true in the dark. Finally, I have, within a few days, questioned a number of persons similarly affected, and find that almost all of them have noticed the same feelings.

I am forced to conclude, therefore, while expressing the highest appreciation of the careful study bestowed upon the subject, that agoraphobia is nothing more than vertigo, with an element of nervous apprehension superadded; that it is in no sense a disease by itself, or even a specially distinctive phenomenon, and that, viewed merely as a symptom, it is of far too little consequence, either practically or scientifically, to deserve the cumbrous and somewhat pedantic designation bestowed upon it by the learned professor.

No. 4, Centre Place, Roxbury.

APPLICATION OF ELECTRICITY.—An article of the *Wiener Med. Presse* quotes a communication made by Dr. Benedict to the Medical Society of Vienna on the application of electricity to medicine. He declares that great results can be obtained from Fromholt's zinc and lead pile. He himself constructed a pile of zinc and carbon, which could be put in action by a solution of one gramme of bichromate of potash in fifteen grammes of sulphuric acid. He has made use of electricity in tumors and inflammatory swellings of the joints, by applying the current, not to the tumor itself, but to the nerves which ramify in it, or to that part of the spinal cord from which the nerves emanate; also for tumors containing liquid, such as hydrocele; for aneurisms, by introducing needles communicating with the positive pole; for lymphatic tumors, by introducing needles connected with the negative pole, and taking care to conduct only a moderate current, so as to avoid suppuration and alterations; and also for indolent buboes, neoplasms and cancers.—*British Medical Journal.*

Progress in Medicine.

REPORT ON DISEASES OF THE THROAT.

By F. I. KNIGHT, M.D. Harv.

Laryngotomy for the Removal of Neoplasms (Krishaber, Planchon, Guyon, Cutter, Schwebel, Luschka).—A distinguished German laryngoscopist who has had much experience in the removal of neoplasms from the larynx, recently remarked that he had never performed laryngotomy for this purpose, because he had never had a case in which it was necessary in order to remove the growth. Still, there are cases in which it undoubtedly may be necessary on account of the situation of the growth (e. g., in the ventricle of Morgagni), the age of the patient, or some other peculiarity of the case. His remark, however, shows the great improvements which have been made in the methods of operating *per vias naturales*.

We wish, however, in the present article, to lay before our readers some account of the *improved methods of laryngotomy*, when this operation is necessary. Until the appearance of Krishaber's article (*Dictionnaire Encyclopédique des Sciences Mèdicales*, 1868), no general laws in regard to the *limitation* of the operation had been laid down for the guidance of the surgeon. In this excellent article, M. Krishaber says:—

"We have just seen, in considering the two dominant symptoms, that the polyp of the larynx being diagnosticated, the surgeon, according to the nature of the symptoms which it establishes, should make, sometimes, direct laryngotomy, sometimes this operation preceded by tracheotomy; and ought sometimes, on the contrary, to operate *per vias naturales*." "When the polyp is voluminous and, situated in the cavity of the larynx, is liable to cause asphyxia, it is necessary to perform tracheotomy. If the polyp is multiple, if its extraction *per vias naturales* encounters difficulties pertaining to the age or particular condition of the patient, if the nature, even, of the polyp causes a fear that a partial removal may cause a rapid multiplication, in all these cases the polyp should be extracted *per vias artificiales*. When, on the contrary, the polyp is situated sufficiently high (at the tip of the epiglottis, for instance) to permit it to be seen directly, or when, with the laryngoscope, it is discovered in the cavity of the larynx, if its volume occasions slight dyspnœa, if it is implanted in such a manner that its displacement cannot lead to an unforeseen access of asphyxia; if, in a word, it is possible to prepare the patient, the operation will be performed *per vias naturales.*"

Per vias Artificiales.

"Laryngotomy in cases of polyp of the larynx has hitherto been made very rarely. The proceedings employed are thus classified:—

a. Section of all the parts of the larynx (cricoid, thyroid, the membrane which unites them and the thyro-hyoid membrane), plus some rings of the trachea (Ehrmann, Gurdon Buck, Gibb, Boeckel).

b. Same operation without section of the cricoid (Debron).

c. Section of the thyroid alone (Brauers, of Louvain).

d. Section of the thyroid and of the thyro-hyoid membrane (Busch, Koeberlé).

e. Section of the cricoid and trachea (Gilewsky).

f. Section of the thyro-hyoid membrane alone (Pratt, Follin)."

From a consideration of the cases referred to above, M. Krishaber draws the following inferences, which, on account of the limited number of cases, diversity of the operations and multiple conditions, he does not claim to be conclusive.

"1. There are cases where destruction at their seat and removal of polyps of the larynx are impossible *per vias naturales*, perhaps on account of their volume, perhaps for very many other reasons which we have developed at length.

2. In these cases, two operative proceedings may be employed:—

a. Sub-thyroid laryngotomy, that is to say the section of the thyro-hyoid membrane, in case of multiple vegetation, as these have a tendency to recur (papillomata) and as their seat does not extend below the vocal cords.

b. Sub-cricoid laryngotomy, that is to say the section of the tracheo-cricoid membrane, plus the section of some of the rings of the trachea, when the polyp is inserted below the vocal cords.

3. The section of the cricoid ought never to be practised, whatever may be the seat and volume of the tumor, this being always accessible by the proceedings above or below which we have just indicated.

4. The section of the thyroid may be necessary, if the tumor is situated in the ventricle of Morgagni, but in this case alone. This section ought to be avoided under all other circumstances:—

a. Because the penetrating wounds of the thyroid produce, necessarily, lesion of the vocal cords, however exactly in the median line of the cartilage the operation may be performed.

b. Because the wounds of the cartilages of the larynx (and what we say here has reference, also, to the cricoid) may produce perichondritis and consecutive caries.

c. Because these cartilages are quite often ossified; because this ossification is ordinarily premature in individuals afflicted by diseases of the larynx, and because it is necessarily a cause of more difficult cicatrization.

d. And because, in fact, all the surface of the cavity of the larynx is accessible to the sight and to the touch, without the section of any of the cartilages of the larynx.

5. In cases where asphyxia is imminent, tracheotomy will find its immediate indication, and the safety of the patient once reëstablished by this operation, the surgeon will consider the consecutive proceedings which he should employ following the indications that we have developed in detail."

Dr. Charles Planchon (*Faits Cliniques de Laryngotomie*, Paris, 1869) adopts M. Krishaber's classification of operations with some extension as follows:—

"1. Laryngotomy direct, comprising:—

a. Section of the thyroid cartilage alone.

b. Section of the thyroid cartilage and of the thyro-hyoid membrane.

c. Section of the thyroid cartilage and of the crico-thyroid membrane.

d. Section of the thyroid cartilage and of the thyro-hyoid and crico-thyroid membranes.

e. Section of the thyroid cartilage, of the thyro-hyoid, crico-thyroid membranes, and of the cricoid cartilage.

f. Section of the thyroid cartilage, of the crico-thyroid, tracheo-cricoid membranes, of the cricoid, and of the first rings of the trachea.

g. Section of the thyroid cartilage, of the thyro-hyoid, crico-thyroid membranes, of the cricoid, and of the first rings of the trachea.

2. Laryngotomy indirect, comprising:—

a. Horizontal section of the thyro-hyoid membrane.

b. Horizontal section of the crico-thyroid membrane.

c. Horizontal section of the tracheo-cricoid membrane.

d. Section of the cricoid and of the first rings of the trachea."

M. Planchon then introduces, in detail, the cases which have come to his knowledge where laryngotomy has been performed according to one or another of these methods, either for removal of a neoplasm or a foreign body, and from a consideration of these cases draws the following conclusions:—

"1. The artificial opening of the larynx has been made by two different proceedings:—

a. Laryngotomy, direct: section of the thyroid cartilage.

b. Laryngotomy, indirect: section of the thyro-hyoid, crico-thyroid, or tracheo-cricoid membranes.

2. These operations ought to be practised independently, except in case of lesions extraordinarily extensive.

3. Tracheotomy will only be performed with laryngotomy when there are special indications.

4. The section of the cricoid cartilage ought always to be avoided.

5. The choice of the operation will be established by the exact diagnosis of the lesion.

6. The section of the thyroid cartilage is not serious as regards life; practised methodically, it is not serious for phonation. The ossification of this cartilage is not a contra-indication. The healing will only be slower. This operation may be made every time there is need of access into the cavity, proper, of the larynx. The new artificial passage can be augmented at will by the section of the conoid ligament and of the crico-thyroid membrane, practised transversely perhaps to the right, perhaps to the left of the median line, perhaps on two sides at once. In certain cases of serious fracture of the larynx, thyroid laryngotomy should be made in preference to tracheotomy. It might be very useful in some cases of obliteration of the larynx consecutive to wounds of the respiratory tube, or certain grave affections of the organ.

7. Indirect laryngotomy should only be employed in very special cases. The proceeding employed by Follin—section of the thyro-hyoid membrane immediately above the thyroid cartilage—is preferable to the proceeding of Malgaigne, section below the hyoid bone.

8. Section of the crico-thyroid membrane, and that of the tracheo-cricoid membrane, are very simple operations, but still more rarely applicable than the preceding."

M. Krishaber (La Thyrotomie Restreinte appliquée au polype du ventricule du larynx, Paris, 1869) gives a *résumé* of a paper presented to the "Société Impériale de Chirurgie," in which he recommends section of the thyroid cartilage without section of any of the membranes, and containing the details of a case and the following conclusions derived from his further experience:

"1. There are cases of polyp of the larynx, in which destruction and extirpation *per vias naturales* are impossible; in these cases, one can open the larynx directly, obtain its complete cicatrization and the cure of the patient.

"2. The choice of the mode of operation will depend upon the tumor and its structure; the opening of the larynx can be performed on the membranes of the larynx or on one of its cartilages.

"3. In cases where the polyp is implanted in the ventricule of Morgagni, section of the thyroid cartilage must be made. The separation thus obtained is sufficient for the extraction of even a voluminous polyp, without section of the thyro-hyoid and crico-thyroid membranes. The section of this cartilage can be made so as to spare the vocal cords, and then the voice remains intact. The presumed ossification of the cartilage is not a contra-indication although it retards cicatrization.

"4. Laryngotomy which consists in the section of the entire larynx, membranes and cartilages, such as has been performed a number of times, ought to be rejected. When, by means of the larynscope the exact seat of the tumor is established, it is sufficient to open the larynx at this exact seat.

"5. Of all the methods employed up to this time for the extraction of polyps, the operation, of which I have just given the history, is that in which the incision of the larynx is the least extensive. It is to this proceeding that I attribute the cure of the patient. I propose to call the operation I have just described restricted thyrotomy (thyrotomie restreinte)."

It will be observed that M. Krishaber has very materially modified his opinion previously expressed in regard to the necessity of injuring the vocal cords, in making section of the thyroid cartilage.

M. Krishaber's paper is supplemented by a report by Dr. F. Guyon, to whom the subject seems to have been referred, which approves of Krishaber's method of operating in the case reported, and says that thyrotomy alone gives direct and complete access to the larynx, particularly to the ventricular cavities. It says that sub-hyoid laryngotomy practised according to the instructions of Malgaigne only gives access to the vestibule of the larynx, that is, to parts accessible *per vias naturales*, and that furthermore this operation requires extensive incision, and that it is only at the bottom of a very deep wound that the surgeon perceives, with difficulty, the ary-epiglottic folds and the ventricular bands. When the incision is made nearer the thyroid cartilage, as was performed by Follin, an easier access is gained to the larynx, particularly to the posterior part.

To reach the larynx by the course followed by Follin, it is necessary to divide a bursa and a cushion of fat often quite extensive, to detach the epiglottis from its inferior attachment and to raise it. Section of the crico-thyroid membrane gives sufficient space to introduce a canula or instruments, but it does not permit one to see into the laryngeal cavity, it does not necessitate a deep incision, but it exposes to injury the little crico-thyroid artery, hemorrhage from which is not without gravity, on account of the liability of the blood to run into the air passages.

Notwithstanding the fortunate results with regard to the voice which have been obtained by M. Krishaber and others, after section of the thyroid, considering the unfortunate results obtained by other operators and the results of experiments upon the cadaver, the report does not regard the operation to be without serious danger to the voice, but does not consider this a contra-indication in cases where thyrotomy is indicated. In regard to the restriction of the operation proposed by M. Krishaber, the report considers that oftentimes in case of multiple sessile polypi, section of the thyroid cartilage alone might not give sufficient room for operation. In all these cases, there is always time, as M. Krishaber thinks, to enlarge the incision by dividing the membranes longitudinally. Balassa has twice incised the crico-thyroid membrane transversely, in order to separate more freely the two parts of the thyroid. This resource could be employed if the separation allowed by the longitudinal incision were not sufficient.

It has been sufficiently demonstrated that simple thyrotomy gives sufficient space for operation within the larynx, for operators to impose upon themselves the rule only to pass the limits of the cartilage, when, in the course of the operation, necessity compels them to do so.

Dr. Cutter, in a monograph .entitled, Thyrotomy for the Removal of Laryngeal Growths, Modified (Boston, 1871), recommends, "In the operation for the removal of growths in the larynx by section of the thyroid cartilage to hold the use of tracheotomy and the tracheotomy tube as a reserve measure." Dr. Cutter is certainly entitled to all the merit of originality in this method of operating, for he seems not to have been aware of the operations of pure thyrotomy which preceded this; but we cannot call it the "American method," as it was done by others before he did it, and has been performed about an equal number of times in this country and in Europe, for the removal of growths, not taking into account the numerous operations of this kind for the removal of foreign bodies. The first operation of simple thyrotomy of which we have any record was performed by Brauers de Louvain, in 1833 *(Krishaber, Diction. Encyc.*, p. 762*)*. Debron reported a case to the Société de Chirurgie de Paris, March 30th, 1864 *(Gazette des Hopitaux*, 1864, Nos. 76, 87, 88), (Krishaber), in which he attempted sub-hyoid laryngotomy, was obliged. on account of threatened asphyxia, to perform thyrotomy and finally to perform tracheotomy, the cricoid cartilage having been left intact. Koeberlé *(Gazette des Hopitaux, June* 7th, 1866*)*, reports a case in which he performed "Laryngotomie d'emblée sans Trachéotomie," for the removal of a growth, June 19th, 1865. In Dec., 1864, Gilewski made a section of the thyroid cartilage and of the crico-thyroid membrane for the removal of polypi *(Wiener Med. Wochenschr.*, 28 Juni und Juli, 1865. *British Medical Journal*, Sept., 1865*)*, (Planchon). The operation has been done twice since that time by Balassa, and once by Krishaber, whose case, an abstract of which was published in the *Medical Times and Gazette*, Nov. 20th, 1869, was remarkable from the fact that the patient spoke with a perfectly normal voice immediately after the operation.

Schwebel (Thèse de la Laryngotomie Thyroidienne et de ses Indications, Strasbourg, 1866, p. 17), says the operation of laryngotomy being decided upon, if the patient is afflicted with intense dyspnœa, if suffocation appears imminent, one should commence by practising tracheotomy and introducing a canula in order to make sure of respiration, or rather should make laryngo-tracheotomy by an incision of two rings of the trachea and of the cricoid cartilage. When, on the contrary, it has been decided to operate on a polyp which has not caused very serious trouble in respiration, and when asphyxia is not imminent, one can proceed to thyroid-laryngotomy without preliminary tracheotomy.

Laryngotomia Thyreoidea Lateralis.—Luschka *(Der Kehlkoph des Menschen*, Tübingen, 1871, p. 19) suggests this operation which has thus far only been performed on the cadaver. It is recommended, in case of neoplasm in the ventricle of Morgagni, when, from any cause, median thyrotomy does not seem advisable, or in case of any affection of the wall of the ventricle, removable by operative procedure. By this operation, it is proposed to open the ventricle of Morgagni without exposing the vocal cord or its muscle to any danger of injury.

This suggestion is founded on the well known fact, that the ventricles of the larynx extend upward on each side to the neighborhood of the upper border of the lateral wings of the thyroid cartilage.

The long axis of the ventricle runs nearly in the direction of a vertical line, drawn between the first and second quarter of the horizontal distance, between the incisura thyreoidea superior and the posterior border of the thyroid cartilage. This vertical line indicates the direction of the incision for lateral thyrotomy, in the execution of which it is necessary to divide the skin, the musc. sub-cut. colli, the musc. sternohyoideus, as well as the thyroid cartilage from top to bottom. After the edges of the cartilage have been drawn asunder by blunt hooks, the upper end of the ventricle of Morgagni comes into view in such a manner that there is no difficulty in continuing the incision through its lateral wall as far as the level of the upper surface of the vocal cords.

Dr. Mackenzie, in a letter (*Lancet*, Dec. 2, 1871), replying to certain remarks of Mr. Durham in the Royal Medico-Chirurgical Society, reiterates the opinion expressed in his Essay on Growths in the Larynx, considering it "*a cardinal law that an extra laryngeal method ought never to be attempted* (even when laryngoscopic treatment cannot be pursued), *unless there be danger to life from suffocation or dysphagia.*"

Perichondritis Laryngea.—A case is reported in the *British Medical Journal*, July 13th, 1872, which seems to have been one of perichondritis laryngea; it occurred at the Hull Infirmary under the care of Dr. G. F. Elliot. The case is remarkable from its having occurred in a robust man without any history of syphilis or other constitutional disease, and from its having recovered without any necrosis. Ten weeks before admission, and shortly after the cessation of what seemed a slight cold, the patient noticed a difficulty in swallowing, and also that respiration was somewhat obstructed, especially on making any exertion. When these symptoms had existed for about a month, he observed that his neck was harder and larger than natural, and this continued gradually to increase. On his admission, the most noticeable feature was the great increase in the antero-posterior diameter of the neck; the swelling was evidently situated in the thyroid cartilage; it was hard, painless on pressure, and presented no indication of suppuration. He was ordered an iodide of potassium mixture, and the local application of iodide of ammonium ointment. On the 28th of February, he was suddenly seized with a complete obstruction to respiration. Mr. Plaxton, the house-surgeon, having been immediately summoned, with great promptitude opened the trachea, and respiration (all attempts at which had ceased) was happily restored by intermittent pressure on the thorax. The necessary incision gave vent to a quantity of somewhat glairy-looking pus. From this time, the man's improvement was uninterrupted, the swelling of the neck gradually subsided, and the thickened thyroid cartilage became nearly reduced to its natural dimensions. The tube was removed on the 7th of May, rather more than two months after its incision; the opening rapidly closed, and on the 11th of May, he was discharged, well.

Double Tone of the Voice in unequal Tension of the Vocal Cords.—Dr. M. J. Rossbach (*Virchow's Archiv*, April 11th, 1872) reports two cases of special interest with reference to the physiology of the voice, in which, during partial paralysis of one vocal cord, there were produced two tones instead of one, clearly distinguishable from each other. One tone had always the character of a chest-tone, the other that of a falsetto. The affected cord was seen to be stretched somewhat, but was not rendered so tense as that on the sound side. On attempted phonation, the arytenoid cartilages were not brought up quite to the median line; hence there was not a complete closure of the glottis. Dr. R. says that this formation at the same time of two tones by two unequally stretched cords, which, of course, were much weaker and less clear than a normal tone, admits probably of no other interpretation than that they have been formed by the vibrations of the vocal cords themselves. For, during the process of phonation the chink of the glottis was several millimetres wide and the processus vocales of the arytenoid cartilages did not even touch each other, so that there could be no interrupted currents of air. Then, again, it is hard to think that one and the same current of air, set into unequal vibrations by not equally rapid movement, should be divided into two tones.

Cases have been reported by Merkel and Türck in which a double tone was produced by a collection of mucus between the vocal cords and ventricular bands, and by growths and polyps on the vocal cords, dividing the glottis into unequal parts, but the above are the first cases reported in which a double tone was produced by unequal tension of the vocal cords.

Papilloma of the Larynx; Warts on the Hands.—Dr. Paluce de Marmon (*N. Y. Med. Record*, Oct. 1st, 1872) reports the case of a patient 5½ years of age, who had had whooping cough at 4, lasting four or five months. This was followed by hoarseness and aphonia. A homœopathist had told the parents that the child "would outgrow it." Instead of this, however, it died suddenly of asphyxia. On *post-mortem* examination, a large papillomatous growth was found in the larynx. There were also half a dozen warts on the backs of the hands. Dr. M. is inclined to think that there was a connection between the two growths.

Primitive Cancer of the Larynx.—Dr. Emile Blanc (*Etude sur le Cancer primitif du Larynx*, Paris, 1872), at the end of his monograph, draws the following conclusions :—

"1. Primitive cancer of the larynx is a rare affection ; the number of observations of laryngeal tumors in general, hitherto published, is very considerable ; that of cancer of this region is limited to less than thirty.

"2. The point of origin and the seat of election of cancer of the larynx, is especially the mucous membrane of the ventricle of Morgagni.

"3. The principal varieties of cancer of the larynx are medullary cancer and epithelioma.

"4. Left to itself, cancer of the larynx invades the neighboring tissues, contracting the respiratory passages and those of deglutition. The cartilages of the larynx oppose for a long time the progress of the disease, but they end by being involved in their turn, and then the progress of the tumor is arrested only by the death of the patient.

"5. At the beginning of the affection, in spite of the most careful laryngoscopic examination, it is very difficult to recognize the cancerous nature of a laryngeal tumor. Later, the rapid extension and the peculiar aspect of the neoplasm, the ganglionic engorgement and the final cachexy make the diagnosis certain.

"6. The treatment recognizes two principal indications :—

a. To remove the disease.

b. To palliate the most urgent symptoms and especially the threatening of asphyxia. This last indication is fulfilled by tracheotomy, the first by the extirpation of the tumor. According to the case, this removal is practised by the mouth or by different procedures of laryngotomy.

"Laryngotomy is always indicated when the tumor is not accessible by the natural passages, or when by this latter means we do not succeed in the total destruction of the neoplasm. In conclusion, however well practised and however radical it may be, extirpation is constantly followed, sometimes by local recurrence, sometimes by secondary generalization, and finally by death by cancerous cachexy. Always, if one does not succeed in saving the life of the patient, at least he mitigates and prolongs it. It was thus that in the case observed by M. Desormeaux laryngotomy permitted the subject to survive for three years. Here, then, as in other analogous circumstances, surgical art by interfering fulfils its mission, which is to soothe if not to cure."

[To be continued.]

Some years ago, a prominent gentleman in this vicinity wrote an article to show that lightning-rods added to the dangers of a storm by attracting the lightning to the structure on which they were placed ; and named many instances where buildings which were thus "protected" had been struck, while he could not find any without the rods which had been so injured.

Per Contra—L'Institut for October, according to the *Medical Times and Gazette*, says M. DeFonvielle's investigations go to prove that the fact of being struck has almost always depended upon the absence of a lightning-conductor, or on its bad arrangement. The Escurial in Spain, lately in part destroyed by lightning, he says was destitute of conductors.

Reports of Medical Societies.

SELECTIONS FROM THE RECORDS OF THE OBSTETRICAL SOCIETY OF BOSTON.

W. L. RICHARDSON, M.D., SECRETARY.

March 9th, 1872.—*Albuminuria during Pregnancy. Labor normal. Death forty-two hours after Delivery.* Dr. Ayer reported a case of pregnancy in which there was œdema of the legs, and the urine was loaded with albumen. A normal labor was followed the next day by severe cerebral excitement, moderate vomiting and great abdominal pain. Bleeding to the extent of one pint relieved the urgency of the symptoms. On the third day, the abdominal pain continued, there was tympanites, hurried respiration and some incoherency. The patient died at noon, and there was no autopsy. No convulsions occurred at any time.

The report of the case was followed by a conversation on the general subject of albuminuria in pregnancy, in which Drs. Fifield, Curtis, Lyman, Read, Wellington and Ayer took part.

Ovarian Tumor.—Dr. Curtis gave the following account of a case of ovarian tumor, the peculiarities of which were the rapid course which the disease ran and the difficulty of determining the existence of a tumor before death.

The patient, a widow 38 years of age, and the mother of two children, entered the City Hospital March 11th, 1871. She had always been strong and healthy. Procidentia uteri had existed for four months previous to her admission, the womb coming down in about ten minutes after she began to walk. Two months before her entrance she was attacked by pain of a sharp character, extending from the back around the abdomen, resembling labor pains, and occurring in paroxysms, once or twice a day, lasting usually about an hour. The abdomen at the same time began to increase in size. The urine was diminished in quantity, and the bowels were constipated. At the time of entering the hospital, a soft, flat tumor was discovered, midway between the umbilicus and the anterior crest of the ilium. On deep pressure, the tumor disappeared. The pain complained of was felt most on the right side, and did not appear to be influenced by pressure. A sense of fluctuation, as if from ascites, was felt, but was not very strongly marked. Percussion showed the depending portion of the abdomen to be dull, the upper resonant. There had never been any jaundice. The urine showed traces of albumen and some doubtful casts. The sp. gr. was 1030.

After free catharsis, the abdomen felt softer. The feeling of nodular softness still remained in the right side.

April 2d.—The abdomen had not decreased in size. A feeling of resistance and fulness, as if from a soft, round body, could be made out in the right ovarian region, where there was also more or less tenderness. A month later, the abdomen had increased considerably in size, and the feeling of a resisting body in the right side of the abdomen was more marked.

May 16th.—The patient for the first time complained of dyspnœa and swelling of the legs. The catamenia were regular.

March 28th.—The abdomen measured 45 inches at the navel, 8½ from navel to pubes and to sternum 10. There was universal and distinct fluctuation. No tumor, however, could be discovered either by external or vaginal examination.

June 2d.—The cervix uteri was found to be enlarged, the uterus lying in the right side of the pelvis, anteflexed and bound down by adhesions.

From this time the abdomen slowly but steadily increased in size.

August 5th.—The patient was tapped, 1½ inches below the umbilicus, with a large curved trochar. About a drachm of a gelatiniform fluid was discharged. A large rectocele occasioned more or less discomfort, and was again and again returned. The patient became weaker and weaker, and died August 18th, about eight months after the first appearance of the disease.

At the autopsy, the abdomen was found to measure at the navel fifty-four inches. On opening the abdomen, there was a discharge of considerable fœtid gas and gelatiniform fluid, mixed with lymph and watery liquid, in amount measuring twenty-three quarts. In this fluid, several small cysts were floating. An encysted tumor of the right ovary was found, with a pedicle the size of the finger, which, on being cut, showed no large vessels. There were no other adhesions. The gelatiniform fluid in the abdominal cavity resembled that found in the cyst on section. In size, the tumor about filled a common wash basin. The parietal and visceral peritoneum was covered with a thick layer of dirty, discolored lymph. The organs were only slightly adherent to one another.

Dr. Lyman thought that it was by no means uncommon not to be able to make out the tumor in these cases. He had had three under his care, in which there was a very marked diminution of the fluid following the administration of large doses of chlorate of potash. In one case, the ascitic fluid rapidly disappeared, allowing the tumor to be easily detected. The effusion repeatedly came and went, under large doses of chlorate of potash.

Dr. Fifield thought that the position of the uterus was one of the most significant symptoms in settling the diagnosis of ovarian tumors.

Uterine Hæmorrhage.—Dr. Lyman having alluded to the case of recurring uterine hæmorrhage which he had reported at a previous meeting, Dr. Fifield said that he thought ferric alum, in the proportion of ℥iij. of the salt to ℥viii. of water, was the best astringent for injections. It gave rise to a less amount of "slag" than any other preparation of iron. In a case of cyst in the popliteal space which he had incised, there was a profuse hæmorrhage which was readily controlled by the use of this styptic.

Abortion with retained Placenta.—Dr. Fifield also related the following case. A woman, the mother of six children, finding that she had passed a fortnight over the menstrual period, introduced the point of a long syringe within the uterine cavity and injected a stream of water. The operation was followed by intense pain and profuse hæmorrhage. Two weeks later, with a crochet needle, she tore up the mucous membrane of the uterus to a considerable extent. A hæmorrhage followed, continuing more or less for two weeks. At the end of this time, Dr. Fifield first saw her, and found her almost bloodless. The usual remedies, such as ergot, ice, &c. &c., were tried without controlling the flowing. A sponge tent was several times introduced, and at length, by means of combined external and internal manipulation, a rolled up placenta, marked by the uterine contractions, was removed by the hand. Various instruments were first tried without effect. Dr. Fifield alluded to an instrument which Dr. Miller, of Dorchester, had invented to draw down the uterus for surgical purposes, which consists of a polypus forceps, the sharp prongs on one side being guarded by a piece of India rubber. The instrument is made on the theory that the inside of the os is not susceptible to slight injuries; the points protected by the rubber are used on the outside of the os, the hooks being inserted on the inside.

Fatal Case of Cholera Infantum.—Dr. Wellington said he had lately attended a little child, 3 months old, who, after an illness of ten days, died of cholera infantum. It was the first case he had ever seen in the winter.

Dr. Read had had a case in November, which lasted six weeks; the patient finally recovered.

HAMPSHIRE DISTRICT MEDICAL SOCIETY.

F. C. GREENE, M.D., EASTHAMPTON, SECRETARY.

The Hampshire District Medical Society held its quarterly meeting in Northampton, Oct. 9th, 1872. The meeting was called to order by the Vice-President, Dr. Oscar C. DeWolf, of Northampton.

After the records were read, Dr. Fisk called the attention of the Society to the great loss by the recent death of Dr. John Dole, who had won the esteem and attachment of the various members of the Society; he paid an affectionate tribute to his memory, and spoke particularly of some of Dr. Dole's marked characteristics, alluding, more especially, to his thorough conscientiousness in medical researches. He also reminded the Fellows of the ready and earnest manner in which Dr. Dole engaged in every duty assigned him by the Society, and in all things, which he thought would promote its welfare, and concluded by expressing an earnest hope that each and every member of the Society would feel that he was especially "baptized for the dead," and that the duties which Dr. Dole took upon himself and discharged so well and so zealously for the District Society, no less than for the Massachusetts Medical Society, were now to be undertaken in the same conscientious manner by his surviving Fellows He then offered the following resolutions in affectionate remembrance of the deceased:—

Resolved,—That the Hampshire District Medical Society has learned with sorrow of the recent death of Dr. John Dole, late of Amherst, in whom it recognized one of the most promising medical men of his age in this Commonwealth.

Resolved,—That this Society, by his death, has lost one of its ablest members, its most willing workers and its truest friends; one who was ever ready to uphold its honor and promote its welfare.

Resolved,—That the community in which Dr. Dole resided has lost an able and scientific physician, who was thoroughly conscientious and self-sacrificing in the discharge of the duties of his profession, and one known and honored by the physicians throughout this State for his professional attainments and ability.

Resolved,—That while we bow in submission to an overruling Providence, we lament the early death of our Fellow, and sympathize sincerely with his widow in her affliction.

Resolved,—That the Secretary be instructed to send a copy of these resolutions to Mrs. Dole.

Dr. Bonney, of Hadley, in seconding these resolutions, spoke feelingly of Dr. Dole's geniality, of his love for his medical brethren, his earnestness in his profession and the pleasure the medical meetings afforded him, to the interest of which he always contributed liberally.

Before putting to vote the question of adopting the resolutions, Dr. De Wolf paid a very handsome tribute to the honor and the generosity with which Dr. Dole spoke of his professional brethren, and the willing and ready way in which he gave each one all the credit due to him, which in his generosity seemed, sometimes, to amount, almost to an exaggeration; his loyalty and devotion to his profession being marked and prominent features of his character. The resolutions were unanimously adopted.

The regular business being now in order, Dr. H. B. Stoddard, of Northampton, read a paper describing a case of Vesico-Vaginal Fistula and its cure by operation (published in the last number of the JOURNAL).

The discussion excited by Dr. Stoddard's paper having ended, Dr. I. B. Learned, of Florence, read an interesting paper on the Physiology of the Liver, after which the Society adjourned.

A SINGULAR WAY OF OPENING THE BOWELS.—In old times they had a pill called the "*Peristaltic Persuader,*" which was much relied on for the relief of habitual constipation. A writer in the Philadelphia *Medical and Surgical Reporter* proposes to accomplish the purpose by what might be called tapping at the door. He says:—"At a regular hour every day, all things being in readiness, tap gently and repeatedly on the anus with a bit of wood or any substance hard enough to produce irritation, and the sphincter will almost certainly relax after a while."—*Pacific Medical and Surgical Journal.*

Medical and Surgical Journal.

BOSTON: THURSDAY, NOVEMBER 21, 1872.

THE MEDICAL BLACK LIST.

ONE of our friends who is inclined to look upon this publication unfavorably gave us his views of the matter in a communication to the JOURNAL some weeks ago. The publication to which he alludes came from the press in March last. A second edition has just made its appearance, and we were told that twice in the course of each year it is to be republished, with additions and emendations, for the benefit of those who choose to pay for it. That our professional brethren are quite as likely to be swindled as any persons, no one of any observation can deny. From conversations with those who have preceded us, as well as from our own observation, we are satisfied that the young doctor has always, in cities, at least, been the victim of misplaced confidence. It is not until he has attained that age and position, when he does not care whether he has a patient more or less on his list, that he becomes exempted from the calls of those who go to the last new man. We have been inclined to feel that our seniors have forgotten that they used to be vexed by the non-paying patient, and that they might with propriety fill out this semi-annual BLACK LIST, and give the juniors the benefit of their experience with individuals. It is too bad, though the laborer is worthy of his hire, that he should not be allowed even the penny for his six hours' work.

The above is one view of the matter. Let us take a fair view of the other side, as given to us by some elder men. This *Black List* contains less than fifteen hundred names. Only about one-fourth of these are the names of residents of the city proper. Are all these names fairly entered in the list? Take Mr. Green, for instance. What is his record? He married, some five or six years ago, the daughter of Mr. Brown, contrary to the wishes of her parents, who, from that day, have refused all intercourse with her, and have repudiated all calls for aid. Green has turned out a gambler and a drunkard. They have three children. She was never taught, except by her fate, to work, but for the last three years the food of her children, as well as of her drunken husband, is supplied by her hard labor. She has even carried a few hundred weight of coal to the fourth story of the house in which she lives. One of the children has been taken sick, and Dr. —— declines visiting it, because Green did not pay Dr. +.'s bill. While Dr. = was alive, knowing the young woman from her childhood, he always gave her attendance. A. says, "Mrs. Green should go to the Dispensary." But the child was taken sick in the night, and the Dispensary physician cannot be had till nine in the morning.

Take Mrs. Cain's case. She formerly employed Dr. Q., or rather her husband did while living. Her physician now is Dr. X. Her name is on the black list, and if Dr. X. were to be away from home, perhaps she might find it difficult to obtain medical attendance. The fact is, that after her husband's death, Dr. Q. offered her certain insults, on account of which she discharged him, and her name consequently went into the list.

Mr. Valentine Orson would be exceeding wroth, if he knew that his name is on one of those pages, and the printer, if he could be found, would suffer in consequence. How came it there? Dr. S.'s last bill was not paid. Do you know why? Go to Mr. Lochiel's shop and look at prescription No. 20,000,701.

Mr. Ballantyne always paid his bills, but his name appears on the list. Let us hear his story. He used to employ *x y z*, M.D. He can show you receipted bills for his whole medical attendance, for every year since he became of age. For the last two years they bear the receipt of *a b c*, M.D. The same fact explains the change in the signature and the name in the *Black List*. His daughter had been some time sick under the care of *x y x*, M.D., and he asked him to consult with *a b c*, M.D. The consultation was refused; *x y z*, M.D. was discharged; *a b c*, M.D. was called in, and behold the result: *x y z*, M.D. had a perfect right to refuse to meet *a b c*, M.D.; but the right to exercise his wrath in the *Black List*, there is some question about.

These are a few of the examples which our seniors bring up as objections to the *Black List*. One of them, in closing his conversation with us, says that "the first few years of my practice gave me a scanty bachelor's subsistence. Every year, however, increased the number of the paying patients, and this through the instrumentality of the early ones who could not pay. I never sued a bill, except when the debtor refused (not neglected) to pay it, and assigned inefficiency or malpractice as a reason. I never sued a bill without recovering it. There was the same complaint of unpaid bills years ago that there is now, but those young men who kept at their work and waited patiently, making no complaints, met with success. Tell your readers, that putting a delinquent patient on the *Black List* will not be the means of paying his bill, and the result of it may be suffering for an innocent family."

THE AMERICAN PUBLIC HEALTH ASSOCIATION.

We have already noticed in brief the organization of this Society on the 12th of September at Long Branch. We take pleasure in giving more full details, by making extracts from an official document which has been placed before us. The purpose and object of the Association are best described in the words of the committee on organization.

"Public Hygiene, as a department of study and labor, has made extraordinary progress during the last quarter of a century. From a code of empirical rules based upon imperfect observation and the assumptions of speculative philosophies, it has advanced to the dignity and character of a true science. The principles upon which it is now firmly and securely established are based upon the deductions of modern physiology, pathology, and chemistry. Physiology now correctly interprets the phenomena of life, and teaches the nature, course and limits of healthy structure and function; pathology reveals the modes by which the normal laws of the body are perverted, and the lesions which disease creates; chemistry analyzes, and to a limited extent has resolved, the elements of contagion, and determined the methods of destroying or neutralizing the agents which induce disease. It is to the brilliant modern discoveries of these allied sciences that sanitary science, or the science of Preventive Medicine, owes its present advanced position, and on them it rests its claims to public confidence.

"And with this establishment of public hygiene upon a scientific basis there has been a remarkable and general awakening of the public mind throughout the civilized world to the value and necessity of sanitary government. There is a growing belief that many, if not most, of the diseases which afflict mankind are of its own creation and may be prevented; that endemics depend upon local conditions which may be removed; and that the most violent and destructive epidemics may be controlled and 'stamped out.' In this country the popular appreciation of sanitary organization and work promises most important results; Legislatures freely enact laws relating to the public health, and Boards of Health for States and municipalities are rapidly multiplying in all parts of the United States.

"Among those who are especially devoted to sanitary studies, and to the practical application of the principles of public hygiene, the necessity of an organization for conference has been felt and frequently expressed. Through such an organization it was believed that the cause of sanitary reform could be greatly advanced, important questions relating to science, policy and modes of work could be discussed and settled, harmony of opinions obtained, and coöperation in the administration of health laws secured.

"An interchange of views by correspondence led to a preliminary and informal meeting which was held in New York on the 18th day of April, 1872, Dr. E. M. Snow, of Providence, R. I., in the chair. The whole subject of a national organization was fully and freely discussed by the gentlemen present from different parts of the country, and great unanimity of opinion as to its importance and necessity was expressed. It was unanimously resolved to organize a Public Health Association, and a Committee was appointed to perfect a plan and report at a subsequent meeting."

In accordance with these suggestions the association was formed, and plans have been laid out for fulfilling its designs. Committees for the investigation of important questions of sanitary science have been appointed, and the result of their labors will be presented in due time. The next meeting will be held in Washington, D. C., the 27th of February, 1873. Gentlemen interested in sanitary science can become members on payment of five dollars annually.

Syphilomania among the Doctors.—The *Pacific Medical Journal*, Oct., 1873, has an editorial with the above heading, suggested by the criticisms of the *Gazette Hebdomadaire*, upon a case reported in the *N. Y. Med. Record*, as syphilis of the heart. The *Gazette* takes exception to the diagnosis, and the *Pacific Journal* thinks the criticism worth the more as coming from the French school, in which the subject has been investigated in all its bearings, and which has been supposed to accord to syphilis as wide a range at least as sound deduction would justify.

The editorial proceeds to state that it is one of the fashions of the day to see syphilis everywhere. Often wandering aches or pains are sufficient to turn the suspicions of some practitioners in this direction, and the diagnosis is confirmed beyond a doubt if the patient has ever had the slightest touch of infection. Even when no such grounds of suspicion can be traced, the feelings of the patient have been outraged by the assertion of the physician that if innocent himself, he must have contracted the disease from his wife, or inherited it from his father or mother.

There is reason to believe that it is the habit with a considerable number of respectable practitioners thus to conjure up the demon of Syphilis; hence the editor suggests the term *Syphilomania* as applicable to this unsound logic.

The Special Department recently established at the Mass. General Hospital for Laryngoscopy and the treatment of diseases of the larynx was opened by Dr. Knight last week. Physicians are invited to send patients needing care, from the poorer classes of the community, on any day except Sunday, from 9 to 10, A.M. Patients of this class require so much time for a correct diagnosis and proper treatment, that they are almost necessarily neglected by busy practitioners. The department is provided with oxy-hydrogen light, plates, specimens, &c., for study and demonstration.

The Hospitals.

MASSACHUSETTS GENERAL HOSPITAL.

Abscess in Region of Left Kidney. [Service of Dr. Minot.]

During the middle of last winter an Irish teamster entered the hospital, stating that he had enjoyed excellent health until about three weeks previously, when, after exposure to cold, he was suddenly seized with chills and fever, and some pain in the left side of the chest. There was a little coughing, but scarcely any expectoration. He could take a full breath with ease. He had at once taken to the bed, and his condition had not improved up to the time of entering the hospital. He was unable to lie on either side. Epistaxis had occurred several times, and sweating was occasional. The pain in the side, worse at night, effectually prevented sleep. The tongue was clean, bowels constipated, pulse 100 and rather hard. Two days after admission there was found dulness on percussion over the left side of the back below the lower angle of the scapula, and extending somewhat towards the axilla. Percussion elsewhere was good. During respiration, subcrepitant râles were now for the first time heard in this region.

The pain became so severe as to require large doses of morphine. On the 3d day vomiting occurred, lasting several hours. The constipation was such as to require enemata. These symptoms, however, were the precursors of a more favorable period, for during the next few days the râles gradually grew fainter, the appetite returned, though the pulse and temperature still remained elevated.

	Pulse.	Temperature.	
Feb. 29th, (9th day),	104,	104° F.	evening
March 1st,	96,	102° F.	"
" 3d,	82,	unobs.	
" 7th,	100,	104° F.	"
" 11th,	124,	105° F.	"
" 14th,	138,	100° F.	"

Several examinations of the urine were made, but, save acidity and diminution of the chlorides, nothing abnormal was noticed. On the 15th day (March 6), the left side became so sore that a poultice was applied, and five days afterwards a fluctuating swelling developed itself over the left kidney, which grew constantly more painful and prominent. Two days later, an incision was made just below the last rib on the left side and two inches to the left of the spine, from which issued six or eight ounces of pus. The opening continued to discharge pus for about a fortnight, and there was complaint of soreness in the left groin on flexing the left thigh. The patient steadily improved, and was discharged well three weeks after the abscess was opened.

Fibrinous Pneumonia; with recent Pleurisy. Autopsy. [Service of Dr. Minot.]

The patient was a woman of 45 years, who had borne three children, the youngest now six years old. Miscarried four years ago, since which time she had been troubled with poor health. Last March she entered the Mass. Gen. Hospital, stating that four days previously she had caught cold, had a chill, raised blood, and also had epistaxis. There was some coughing and a great deal of pain in the right side, which was aggravated by the cough. The face was flushed; pulse 102; marked bronchial respiration under the right clavicle. Two days later, in the same locality, some dulness was evident, with loud, rude respiration and course, rough expiration. Throughout the back on the right side there was complete dulness, with bronchial respiration in the upper three quarters, being most marked below the spine of the scapula. The expectoration which she said had at one time been rusty was now bright yellow and scanty. The pain in the side continued, the pulse had risen to 130, respiration being 60 per minute. The tongue dryish and slightly coated, the mouth somewhat excoriated. The bowels moved daily. Temperature in the evening, 102° F. (A grain each of opium and ipecac, with two grains of nitre, were ordered, *pro re nata.*) The following day, an examination of the urine revealed the presence of albumen and casts. The next day (the fifth after admission), there was considerable prostration, with delirium at night. The pulse and respiration remained as before, while the temperature rose to 103° F. There were no casts in the urine of this day. Brandy was given, but the pulse gradually sank to 72, the pain diminished, and she died quietly at the dawn of the ninth day from the first chill, after five days' treatment in hospital.

Autopsy by Dr. Fitz, 10 hours post mortem.

The body was very fat, and with but slight rigor mortis. Moderate fatty degeneration of the heart existed, with small mitral valves. The left lung was almost entirely free from adhesions, crepitating readily and containing a moderate amount of pigment; the posterior portion was of a bluish-slate color, the more evident on account of post-mortem hypostasis. The cut surface of this lung was of normal appearance.

The upper lobe of the right lung was separated from the thoracic wall by a mass of recent yellow œdematous false membrane, which also extended into the fissure between the lobes. At the border of the fissure, upon the anterior surface of the lung, a cavity existed in the false membrane containing some ℥iij. of yellow opaque serum. The lower lobe of the lung was attached to the parietes by means of a recent delicate false membrane covering both visceral and costal surfaces. The lung was distended almost to its maximum, solid, heavy, and of a reddish-gray color, non-crepitating, and sinking in water. On section, the lower lobe was uniformly infiltrated with a firm, moist mass, of slightly granular surface, thickly studded with opaque gray, sometimes yellow, points, of the diameter of a pin's shaft, and presenting here and there yellow, gelatinous, somewhat elastic plugs, which could be drawn out of the smaller bronchi. On scraping the surface of the lung, a reddish fluid was obtained, in which were numerous translucent, gray granules. There was a small amount of blood present in the vessels. Microscopically, the granules were made up of lymphoid cells, with incipient fatty degeneration, firmly held together by coagulated fibrine. The bronchial plugs consisted mainly of mucus mixed with ciliated epithelium.

From the upper lobe of the lung exuded a considerable amount of non-viscid, serous fluid. The cellular infiltration existing here also had the form of small granules, presenting, as a rule, no evidence of fatty degeneration.

BOSTON CITY HOSPITAL.

Three Cases of Typhoid Fever, characterized by the appearance of bluish maculæ upon the skin. [Service of Dr. Lyman.]

I.—J. R., æt. 17, clerk, admitted Oct. 6, 1872. Was born in Ireland and came to this country seventeen months ago. No hereditary disease in family. His general health has always been good up to the present time. Nine days ago he was attacked with cephalalgia, which prevented him from doing any work, and two days before his entrance diarrhœa commenced. On his entrance he was ordered to keep his bed; his countenance was natural, skin hot, tongue moist and covered with a white coat. Appetite good and thirst extreme. He suffered no pain and had no epistaxis or iliac tenderness. Had had four dejections on the day of entrance; micturition free; urine high colored.

Pulse 112; temperature 105°. He was given pulv. ipecac. et opii, gr. viii. On the following day the whole surface of the body and extremities became covered with distinct bluish-colored maculæ, varying in size from about $\frac{1}{8}$ to $\frac{1}{3}$ inch in diameter.

For the following ten days the patient gradually improved; the temperature ranged variously from 98° to 105°; bowels were inclined to constipation. During this period the maculæ gradually faded, and on the 28th of the month had entirely disappeared.

II.—David G——, æt. 26. Marble cutter. Admitted Oct. 10, 1872. Was born in Vermont. No hereditary disease existed in the family, and the patient evidently possessed a good constitution. He contracted intermittent fever when quite young, and has been more or less subject to that disease ever since.

Six weeks ago he took a severe cold, followed by a chill with high fever, also by cough with bloody expectoration; he was confined to bed five days and then resumed work, but did not recover from the cough, and in a few days was obliged to give up work on account of cephalalgia, nausea and general malaise. During the past ten days he has been in bed, being troubled with hacking cough, muco-purulent expectoration streaked with blood. Severe febrile symptoms were present. On entrance he was very weak; his countenance presented the typhoid aspect with general feverish symptoms. The tongue was tremulous when protruded, and was covered with thick coat in the centre, but was moist at tip and edges. He had had slight diarrhœa; suffered pain in region of sternum on coughing, and had tenderness in the iliac region. On the surface of the abdomen, and upon the arms and legs, there was an eruption of bluish-colored maculæ, varying in size from about $\frac{1}{8}$ to $\frac{1}{3}$ in. in diameter.

On the third day after entrance the countenance was dusky, the tongue dry and dark. Some more bluish spots appeared. His general condition was depressed.

From this time forward the patient continued to improve; the temperature was seen to be from 99° to 104.5°; the maculæ gradually disappeared, and on the 24th ceased to be apparent. On the 31st he was discharged convalescent.

III.—Margaret M——, æt. 24. Domestic. Born in Ireland. Was admitted Oct. 24,

1872. General health had always been good up to the time of present illness. Five weeks ago she was attacked with headache, pain in back and limbs, and slight diarrhœa. Was confined to bed for two weeks; got better and has been at work until the night before entrance. Six days before, she had had a chill with pain in various parts of the body, and a slight diarrhœa. The symptoms on her admission to the hospital were those of fever. The abdomen was full, but not distended; one or two rose spots were visible. Upon the surface of the abdomen were seen a few pale-blue maculæ about the size of a five cent piece. The symptoms in this case were those usually seen in typhoid fever of a mild type; on the 31st the spots had disappeared and the patient was rapidly convalescing.

In none of these cases, were there any scorbutic symptoms. They are mentioned slightly by several authorities, and are reported only because they are unusual and not because they are of any prognostic importance. Trousseau speaks of them as occurring only in mild cases which terminate favorably.

Six cases of Intermittent Fever, treated by Subcutaneous Injection of Sulphate of Quinine.

[Service of Dr. Arnold.]

I.—C. M., æt. 28, cook, a native of France, was admitted Sept. 10, 1872. His health had generally been good. Had never been sick with the exception of two previous attacks of intermittent fever. In 1866 he had chills while living in New Orleans, also once while living in Mississippi. He had been but ten days in Boston when taken sick. The first chill occurred one week before his admission, at 9 A.M., lasting two hours, and had recurred at that hour every other day. He had taken no medicine. He was ordered Quiniæ Sulphat. gr. xii., to be taken to-morrow between the hours of 12 midnight and 3 A.M.

11th.—The night watch omitted to give the quinine as ordered. The chill appeared at 8 A.M. A subcutaneous injection of Quiniæ Sulph. gr. viii. was given, immediately arresting the chill. At 11 A.M. the skin was warm and natural. Pulse 74. Sept. 16 he was discharged, having had no return of the chill.

II.—Baptista C., æt. 40, sailor. Born in Trieste. Was admitted Sept. 18th, 1872. He had never been ill before. During the past four months he had lived most of the time in Baltimore. Came to Boston twelve days before entrance. On the 11th, he was seized with chill about 5 A.M., which lasted two hours. Again, on the day of admission, at the same hour the chill returned and lasted about two hours.

20th. Chill commenced at 3 A.M., and Quiniæ Sulph. gr. x. were given by subcutaneous injection. The chill stopped almost immediately. At 4.30 A.M. the temperature rose to 107°, but at 5.30 A.M. fell to 102.°

Sept. 25th.—He was discharged, having had no recurrence of the chill.

[Service of Dr. Edes.]

III.—Neil Mc., æt. 20, hostler, was admitted Sept. 20th, 1872. The patient went to Savannah last month and remained there two weeks. On his return to this city he had his first attack of intermittent fever. Until to-day the chill had occurred every evening about 5.30, and lasted an hour; but he had one on the day of his admission at 6 o'clock, lasting the same time as the others. He suffered from headache and general weakness. Since the chills first commenced, he had been troubled with a cough, and on the 19th the sputa were streaked with blood. He slept poorly. The tongue was clean and moist. Pulse 72, full and strong No disease of the lung was detected. At 4.30 P.M. the chill came on. A subcutaneous injection of Quiniæ Sulph. gr. xx. was given, and the chill ceased entirely in ten minutes. The temperature taken every half hour was as follows: 4.30, before injection, 103.5°; 5 o'clock, 97°; 5.30, 102°; 6 o'clock, 105°; 6.30, 102°. Sept. 21st, pulse 72, temp. 98.5°. 24th, he had no return of the chills.

[Service of Dr. Lyman.]

IV.—John S., æt. 21, teamster, a native of Scotland, was admitted Oct. 5th, 1872. He first contracted chills and fever on Long Island seven years ago, and had been subject to them at times ever since. His present attack commenced three weeks before his entrance into the hospital, and was of the quotidian type. The chill took place five hours before the visit, and was checked immediately by the subcutaneous injection of Quiniæ Sulph. gr. x. On the 6th he was ordered Quiniæ Sulph. gr. ii. 3 times a day. Oct. 14th it was reported that he had no real chill since the subcutaneous injection, but had experienced occasional chilly sensations. The quinine was increased to gr. iii. Oct. 28th he had no return of the chills, and on the 31st was discharged well.

V.—Wm. N., æt. 19, teamster, an American, was admitted Oct. 17th, 1872. He had had typhoid fever two years ago, and measles last fall. About two weeks before entrance he was attacked with a severe chill, and since then had been confined to bed most of the time, and had suffered with a persistent headache. During the first week he had a chill every other night, but during the previous week he had one every night about 6 or 7 o'clock, the chill coming a little earlier every night. The same evening the chill occurred, and was speedily arrested by subcutaneous injection of Quiniæ Sulph. gr. x. The next day he was ordered Quiniæ Sulph. gr. i. every three hours, internally. On the 21st, he had had no more chills, and was discharged, with the advice to continue the quinine for a fortnight.

VI.—Isaac H., æt. 46, colored, native of Virginia, was admitted Oct. 21st, 1872. Eight years before, he had had his first attack of chills and fever, and the disease had returned every fall since then. On the 20th he had a chill at 4 P.M. and another on the 21st at the same time. At 10 P.M. the chill returned and Quiniæ Sulph. gr. x, were injected subcutaneously, with the result of very soon arresting the chill completely.

Oct. 22 he was directed to take quinine, one grain three times daily

28th—He had no return of the chills and awaited his discharge.

Prophylaxis of Hydrophobia.—The *British Medical Journal* calls attention to the measures recommended by the Council of Hygiene of Bordeaux, for the better protection of people against the dangers of hydrophobia. It is well known that the madness of dogs has a period which is premonitory and harmless. If these periods were generally known, the dogs could be put out of the way before they become dangerous. On this subject the Council of Hygiene has issued the following instructions:

"A short time, sometimes two days after madness has seized a dog, it creates symptoms in the animal which it is indispensable to recognize.

"1.—There is agitation and restlessness and the dog turns himself continually in his kennel. If he be at liberty, he goes and comes and seems to be seeking something, then he remains motionless as if waiting, then starts, bites the air, as if he would catch a fly, and dashes himself howling and barking against the wall. The voice of his master dissipates these hallucinations, the dog obeys, but slowly, with hesitation as if with regret.

"2.—He does not try to bite, he is gentle, even affectionate, and he eats and drinks, but gnaws his litter, the ends of curtains, the padding of cushions, the coverlids of beds, carpets, &c.

"3.—By the movement of his paws about the sides of his open mouth, one might think he was trying to free his throat of a bone.

"4.—His voice undergoes such a change that it is impossible not to be struck by it.

"5.—The dog begins to fight with other dogs; this is a decidedly characteristic sign, if the dog be generally peaceful.

"The three symptoms last mentioned indicate an advanced period of the disease and that the dog may become dangerous at any moment, if immediate measures are not taken. It is best to chain him up at once, or, better still, to kill him."

It is desirable that this advice be inserted at least once a year in the public papers. It would also seem particularly desirable and practicable that these rules should be printed on the back of the notices and receipts for dog taxes. These excellent measures ought to become generally adopted.

Longevity of Farmers.—According to Dr. Nathan Allen, of Lowell, in his registration reports of deaths in this State for thirty years, the cultivators of the earth stand as a class at the head, reaching, on an average, the age of nearly 65 years.

Correspondence.

Messrs. Editors:

In the number of the *Journal* for July 4th, you quote from Dr. Williams's work on Consumption, "the medicine we have found to act as a specific on night-sweats is the oxide of zinc, in doses of two or three grains, in the form of a pill at night;" and you ask "how closely will the experience of the American physician coincide with this statement?" While the surgeon of the National Military Asylum, Eastern Branch, 1868-70, there were under my care many cases of consumption, mostly from two to five years' standing. Night-sweat was a very common symptom, and for its relief I learned to rely entirely on the oxide of zinc, three grains in pill at night, combined with a little hyoscyamus. It seemed as nearly entitled to the name of specific as any medicine in the Pharmacopœia.

J. O. Webster.

Lynn, Oct. 18, 1872.

Medical Miscellany.

The Fire.—The Medical Profession seems to have wonderfully escaped disaster in the late fire. Not only has our own office been preserved, but the instrument dealers, Codman & Shurtleff, Leach & Green and S. S. White, have been equally fortunate. The office of our contemporary the *Journal of Chemistry* was burned to the ground.—Eds.

Dr. J. M. Foltz has retired from the position held by him as Chief of the Bureau of Medicine and Surgery, U. S. N., and Dr. H. Palmer has taken his place.

The Roxbury Charitable Society.—This Association, which dates back to the year 1794, continues to dispense its charities as of old to the poor and sick of the Highland District. The former Roxbury Dispensary is now merged in this corporation, and the report for the year ending October 1, 1872, includes that of the Dispensary department. The whole number of patients treated in the year has been 381; suffering under the usual variety of diseases. Drs. Campbell and Morse, the physicians of the dispensary, report a favorable result from the methods of treatment which they have used.

Dartmouth Medical College.—The graduating exercises at the close of the seventy-sixth annual course of lectures at this institution were held Oct. 30th, 1872. Addresses were made by Dr. L. French, of Manchester, N. H., and Rev. Dr. Smith, President of the College, after which the degree of M.D. was conferred on twenty young men.

The Museum of Pathological Anatomy, founded by E. W. Stoughton, Esq., by the gift of upwards of ten thousand dollars, is rapidly approaching completion, and is expected to rival any similar collection in the country. The improvements made and in progress, together with the increasing number of students, give promise to this venerable school of extended usefulness in the future.

The American Journal of Obstetrics will, in future, be published by Messrs. Wm. Wood & Co., at 27 Great Jones Street, New York.

Cambridge University, England.—The present freshman class is the largest ever known in this University—622. In 1869 it numbered 567; in 1870 it was 612; in 1871 it fell off to 572. Of the seventeen Colleges, Trinity has the largest number—163; Queen's the smallest—5.

For Chilblains:—

Oxide of zinc,	2 parts	
Tannic acid,	1 "	
Glycerine,	10 "	
Balsam of Peru,	8 "	
Camphor,	4 "	M.

(*From l'Union Medicale.*)

It is stated officially that during the month of October all the Metropolitan Water Companies delivered well-filtered, clear and transparent water. Yet it appears that deaths from fevers, scarlet, typhus, enteric, &c., rather increased than diminished as the month advanced.

There were 476 new medical students registered in the Metropolitan Schools of London for 1872—the whole number being 1496. This is the largest number hitherto registered, being 198 more than in 1870, and 21 more than last year.

Books Received.—The Dangers of Chloroform and the Safety and Efficiency of Ether, as an agent in Securing the avoidance of pain in Surgical Operations. By J. Morgan, M.D., F. R. C. S., etc. London: Bailliere, Tindall, & Cox. 1872. pp, 45. (From James R. Osgood & Co.)

The Microscope and Microscopic Technology. A Text Book for Physicians and Students. By Dr. Heinrick Fry, Professor of Medicine, in Munich, Switzerland. Translated by George R. Cutter, M.D., Clinical Assistant to the New York Eye and Ear Infirmary. New York: William Wood & Co. 1872, pp. 658. (From James Campbell.)

Pamphlets Received.—Medical and General Science as Vindicators of the Mosaic Record, and as Repudiators of the Modern Doctrines of Development and Selection. By S. S. Gallaird, M.D. Louisville, Ky.; 1872, pp. 52.

Transactions of the American Otological Society. Fifth Annual Meeting. Newport, R. I., July 17, 1872. Boston: 1872, pp. 98.

Report on the Progress of Otology. Read before the American Otological Society, at their annual meeting, July, 1872. By Clarence J. Blake, M.D. Boston: 1872, pp. 46.

Died,—In Berlin, Prussia, 9th inst., Dr. J. S. Copley Greene, of Boston, aged 27 years.

Deaths in thirteen Cities and Towns of Massachusetts, for the week ending Nov. 9, 1872.

Cities and Towns.	*No. of Deaths.*
Boston	162
Charlestown	11
Worcester	17
Lowell	15
Chelsea	7
Cambridge	20
Salem	5
Lawrence	5
Lynn	12
Gloucester	5
Fitchburg	4
Newburyport	5
Haverhill	4
	272

Prevalent Diseases.	
Consumption	46
Smallpox	35
Pneumonia	19
Typhoid Fever	13
Croup	8

The deaths from smallpox were as follows: Boston thirty-one, Charlestown two, Chelsea one, Lynn one.

George Derby, M.D.,
Secretary of State Board of Health.

Deaths in Boston for the week ending Saturday November 16th, 162. Males, 83; females, 64. Accident, 4, apoplexy, 1—asthma, 1—dis. of bowels, 1—bronchitis, 5—inflammation of brain, 1—burned, 1—disease of brain, 3—cyanosis, 1—cancer, 4—cholera infantum, 2—cholera morbus, 1—consumption, 16—convulsions, 3—croup, 4—debility, 7—dropsy, 1—dropsy of brain, 2—drowned, 1—epilepsy, 1—erysipelas, 1—fever, scarlet, 4—fever, typhoid, 8—gastritis, 1—heart disease, 6—homicide, 1—imperfect development, 1—disease of kidneys, 2—disease of liver, 4—congestion of lungs, 2—inflammation of lungs, 6—marasmus, 9—old age, 2—paralysis, 1—pleurisy, 1—premature birth, 1—puerperal disease, 3—purpura hæmorrhagica, 1—rheumatism, 1—suicide, 1—smallpox, 28—tonsillitis, 1—unknown, 2.

Under 5 years of age, 44—between 5 and 20 years, 26—between 20 and 40 years, 36—between 40 and 60 years, 27—above 60 years 14. Born in the United States, 97—Ireland, 38—other places, 12.

THE
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Original Communications.

CASE OF TYPHOID FEVER, ENDING IN BELL'S DISEASE, OR EXHAUSTIVE MANIA.

Read before the Boston Society for Medical Observation, Nov. 4, 1872.

By Henry Tuck, M.D. Harv.

A. B. aged 25, married, temperate, habits of life always entirely correct, of healthy family, his mother and several brothers and sisters being still living and in good health. His father died at the age of 43, of typhoid fever, after an illness of four or five weeks, during the last two of which he was violently delirious, almost all the time.

Aug. 28th, the patient first consulted me about himself, and stated that during the summer he had worked hard, and been closely confined to his business, that of a broker's clerk, and had had much anxiety about his wife, who had been recently confined, since which time he had been broken of his sleep a good deal by the infant. I had, however, during his wife's illness seen him almost daily, and he seemed well, and never complained of feeling otherwise. About two weeks before, he had been in camp with a militia company, of which he was an officer, and had returned home feeling as well as ever he did in his life. For the past few days, however, he had felt poorly, and complained of lassitude and headache, a thing to which he was not subject. He had on several occasions perspired very freely at night, a thing which he had never done before, and it evidently worried him a good deal. His appetite was fair, he had no cough or any symptoms which I could discover beyond lassitude, loss of his usual good spirits, and the night sweats. I ordered him tr. ferri chlor. and advised him to take a vacation.

The next day he spent at the sea shore, most of the time on the water, and returned home feeling much better. The 30th he attended to his business as usual, and the 31st also went to his business, but came home at noon feeling very faint and tired. I saw him that evening. Found him in bed, with slight febrile symptoms. Could not learn he had had any distinct chill, but he had had chilly sensations, and when I saw him he was loaded down with bedclothes and was perspiring freely. Had headache, and seemed irritable and unreasonably anxious about himself; no fulness or tenderness of abdomen.

Ordered him to keep his bed, to have liquid diet, and gave him a fever mixture of nitre and liq. ammon. acet.

Sept. 1st.—Saw him at 9, A.M. Had had a restless uncomfortable night, slept hardly any, owing partly to the cries of an infant sleeping in his room. Had had two loose discharges. There was no fulness or tenderness of the abdomen, but slight gurgling in right iliac region. He had had slight epistaxis two days before, for the first time in his life. Had some headache, and complained only of that and restlessness. Seemed very nervous and depressed about himself. His pulse was 88, and his tongue more coated with a white fur. I considered he had typhoid fever, and ordered him sulphurous acid, and to have mistura cretæ and tinct. catechu, if diarrhœa became worse. I also ordered him bromide of potash, 20 grs. at bed time, and to repeat the dose every four hours if he was restless and did not sleep.

Sept. 2d, 9, A.M.—I found patient had had a very bad night, and had been extremely restless and delirious—was not very violent, but talked incessantly, and was very abusive of his attendents, especially his wife, whom he blamed for cooking his food badly and not giving him proper food. He dwelt on this point repeatedly, and said he should not have been sick if he had had better food. He complained of his wife's not caring for him, of neglecting her child, &c. These charges were all entirely groundless: 7 P.M. he seemed much worse. He had a high fever and was semi-delirious, but knew what he said, and could be quieted by a word and reasoned with. Abused his wife before me, to whom he was usually very kind and affectionate. He was ordered bromide of potash, gr. 20, every three hours during the night. Had had one or two loose discharges, but at long intervals and small in amount—not requiring the diarrhœa mixture.

3d.—I was sent for early in the morning, as he had been very delirious all night and had not slept any. Febrile symptoms continued, and he looked very badly. Pulse 96, small, tongue heavily furred ; no marked abdominal symptoms, no increase of diarrhœa. He entirely overawed all his attendants, and could not be taken care of at home, so I advised his removal to the Massachusetts General Hospital ; to this he readily consented, and he was carried there that forenoon. The following account of the subsequent history of the case is therefore from the records of the Massachusetts General Hospital, and McLean Asylum. His condition on reaching the Hospital is thus described :—Patient in bed, rather anæmic and very nervous, but appears bright and answers questions freely ; appetite gone. Thirsty. Bowels had been perfectly regular and are so now. (This, as will have been seen, is a mistake, as on Sept 1st and 2d he had two or three loose dejections, for which he was ordered chalk mixture, which, however, he did not require as the discharges were so infrequent.) Tongue coated ; forehead warm ; hands cold ; pulse 96, small and weak ; temperature 108°; abdomen tense but not tender on pressure ; no undoubted rose spots seen (he had previously been examined for rose spots, but none had been found) ; some sore throat, with difficulty in swallowing, and dry cough ; fauces red and inflamed. He was ordered potass. chlor. gargle, and liquid diet.

4th.—Subject to delusions, very nervous. Told all sorts of false, improbable and contradictory stories about himself, such as that he was a drunkard, had been unfaithful to his wife, given her syphilis, &c. Ordered

℞. Ext. fl. taraxaci, ʒi. ;
Ext. fl. valerian. ʒss. ;
Syr. senegæ, ʒi. ;
M. to be taken every 4 hours.
℞. Camphoræ monobrom. gr. iv.
at bed time.

Diet, soup, porridge.

5th.—Delirious last night ; pulse 116, small and regular ; skin moist ; pupils equally dilated, with the head turned from the light. Expression troubled. Restless. Tongue with white coat. Ordered salts and senna. Beef-tea.

6th.—Mania and delirium so violent that he had to be strapped into bed. Talks a great deal, and imagines himself in various places. Skin moist. Pulse 126 and regular. Temperature could not be taken. Abdomen moderately full and tympanitic. No rose spots. Pupils equally dilated, with head turned to dark part of room. No cough, but he spits up opaque, viscid, bloody matter. Two dejections yesterday (result of cathartic, I presume). Morphia gr. ⅙, subcutaneously.

He was seen by Dr. Fisher ; his case was pronounced typho-mania, and he was sent to Somerville.

I saw the patient on this day, with Drs. Shaw and Fisher, at 11½, A.M. Patient was strapped on his bed, in a small room by himself. He was covered with profuse perspiration. Face anxious. Looked very badly and altered much for the worse since I saw him on the 3d. He was talking tremulously and incessantly in a loud whisper, and very disjointedly. Whole manner very tremulous. Did not recognize me, and I could get no intelligible answers from him. Pulse about 120, very small and weak. Tongue dry and brown. Dr. Fisher said he considered there was no hope of his life, and that it would probably not injure him to remove him to the McLean Asylum, which Dr. Shaw was anxious to do, as he could not be taken care of at the General Hospital.

The account of the patient, while at Somerville, was kindly sent me by Dr. Jelly. Patient admitted to the Asylum Sept. 6th, about 4, P.M. He was very weak and tremulous. Pulse 150. Tongue dry and brown. Not noisy, but continually muttering deliriously. He was at once put to bed. Iced milk and broken ice were given, and taken by him freely.

7, P.M.—Pulse 120. Temperature 103½°. Whole surface of body covered with perspiration. Very restless. Continually attempting to jump out of bed, under the delusion that he and his friends were in trouble ; apparently much frightened about fire. Restraint necessary during the night to keep him in bed. At 9½, P.M., morph. sulph. gr. ⅕ was given him, and he slept four or five hours. When he awoke, he took iced milk and wine.

7th. 8, A.M.—Pulse 132. Resp. 40. Tongue dry and brown. Perspiring profusely. Takes beef-tea freely, though there is some difficulty in nursing him. Temperature 105°. Lies in bed, picking at bed clothes and muttering in low tone. Evidently sinking. Recognized his wife at 11, A.M.

2, P.M.—Pulse 176. Resp. 50. Recognizes no one. Rouses a very little when spoken to in a loud tone. Without special change he continued to sink, and died at 8.20, P.M. No autopsy.

Various opinions have been given by the gentlemen who saw this patient, some holding it to have been simply typhoid fever, others that it was Bell's disease only; but to me it seems to have been as the title of this paper indicates, a case of typhoid fever terminating in Bell's disease. The original article by the late Dr. Luther V. Bell, the former superintendent of the McLean Asylum, read by him at the annual meeting in May, 1849, of the Association of the Medical Superintendents of American Institutions for the Insane, was entitled "On a form of disease resembling some advanced stages of mania and fever, but so contra-distinguished from any ordinarily observed or described combination of symptoms, as to render it probable that it may be an overlooked and hitherto unrecorded malady." The paper was published in the *American Journal of Insanity* for October, 1849. In it Dr. B. states that in a period of twelve years, 40 cases of this disease occurred in a total of 1700 cases of insanity admitted into the McLean Asylum. "Three-fourths of them at least terminated fatally. The remainder promptly and entirely recovered; so much so, in fact, that one of the distinguishing marks will be found to be deduced from this speedy and sequelless restoration." The symptoms are thus given: "The patient is usually brought to you in a situation which impresses you, at first glance, with the impression that he is scarcely fit for an institution for the insane. His physiognomy and articulation are rather those of fever and delirium. He sinks into a chair, his shoulders bent forward as if very feeble. When informed where he is, his mind appears to comprehend the fact dimly. His hands and tongue are tremulous. Pupils either contracted or dilated, but without intolerance of light. The face pinched, yet florid and greasy. Expression anxious. The tongue coated thickly and mucous surfaces considerably reddened. The delusions are indefinite and confused, but partaking always of a distressed type. There is loathing of food, with the suspicion of its being filthy or poisoned. If there be thirst, as the condition of the tongue and face strongly indicate, it is not conveyed to the sensorium. The type of the delirium is like the low mutterings of typhoid, except that the faculties can be stimulated by direct inquiry to a momentary correct action. The patient, in his general dull apprehension of impending danger, makes constant attempts to get out of bed, and if permitted to do so, will stand until exhausted. Almost every one of these cases was treated with the bed-strap to secure recumbency—a measure scarcely ever employed with us in any other case. If held, the patient will struggle with the utmost desperation, irrespective of the numbers and strength of those opposing him. The pulse is small and rapid. On inquiry of the invasion of the attack, you will find it came on suddenly, 'about a week since'—frequently, indeed, by a sudden outbreak. In the progress of the disease there is no great change of characteristics. The patient gets so little food, so little sleep, and is exercised by such constant anxiety and restlessness, that he will fall off from day to day. The emaciation goes on with a rapidity unexampled in either mania, fever, or delirium tremens. Death or entire recovery occurs in two or three weeks. As regards the post-mortem appearance, there was only slight cerebral and meningeal engorgement, not greater than the incidents of sleeplessness, agitation and death might be expected to leave, independent of any great morbid action behind these.

"*Diagnosis.*—The only diseases with which it might be confounded are delirium tremens, inflammation of the brain or meninges, and typhoid fever. As regards delirium tremens, there is the absence of the cause, the much greater clearness of the hallucinations, his readiness to express them and argue about them, and his facility in being temporarily soothed. As regards cerebral inflammation, there is wanting the bounding pulse, the throbbing carotid, the wild, blood-shot eye, the intolerance of light, the burning thirst, the raving delirium, and the acute pain in the head. As regards typhoid, the fact that for several years we regarded these cases as dependent on the existence of fever, and on their decease returned them in our annual recapitulation as "unfit cases," will, perhaps, be the strongest proof of the sincerity of conviction of the analogy of the symptoms. Others more competent to judge have also confounded them. Two of the cases were sent from the Massachusetts General Hospital, where they had been entered as fever, until their excitement became so violent as to compel their removal. The prominent points of difference are, 1st, in the stage of the disease. The muttering delirium seen here at the end of a week, would not be expected in typhoid in less than fifteen or twenty days. 2d. The absence of rose-spots. 3d. The absence of infection, one case of fever with us having proved the source of others. 4th. The absence of the pathological changes found in typhoid. Upon the whole, the resemblance is considerable, but not enough to deceive the experienced observer." After a report of eight or ten cases, he finishes with a few words about the treatment, which, briefly told, should be supporting, the free use of stimulants, or the "non-interfering expectant plan," the often discreet method of meeting symptoms as they develope, or their urgency demands.

The case of which the account has been already given, seems to me to correspond with the resumé above given of Dr. Bell's paper, except that the present case began clearly as a case of typhoid, running later, into Bell's disease, typho-mania, or exhaustive mania, as it has been variously called; that it began as typhoid, seems clear, from the fact that for some days the patient had malaise, loss of appetite, chilly sensations, slight epistaxis, &c., the usual prodromata of typhoid. The only one of the most common symptoms of the earlier stages of typhoid which he did not show to a greater or less extent was rose-spots, but these are not invariably present, and do not usually appear before the second week. The diarrhœa was slight, but still not less so than is often seen. That the delirium in which the case ended was something more than the severe delirium seen in bad cases of typhoid seems proved by the fact that it came on violently on the third day (reckoning the run of his fever as Flint does from the day a patient takes to his bed), that he was, especially after his removal to the hospital, as violently delirious by day as he was by night, whereas the delirium of typhoid usually comes on during the second week, and is very much less by day than by night. The marked sleeplessness was also a noticeable feature, for during the first five nights he slept scarcely at all, though he was given potassii brom. in pretty large and frequent doses. The first sleep he got after the first night was at the asylum, and was procured by the use of morphia subcutaneously.

In the delirium of typhoid, again, if the "patient's attention be strongly engaged he may almost always be aroused, and does for a time as he is told, but soon his muttering lips indicate that some curious fancy has taken possession of him."

Here his attention could be gained for the first two days of his delirium, but after that he could not be made to give rational answers or to recognize those with whom he was familiar, except his wife, whom he knew the day before he left the Hospital, and on the day of his death at the Asylum. Flint also states that the incoherent talking usually relates to the patient's habitual pursuits; but this patient, to my knowledge, did not do this at all, but spoke only all sorts of false and unreasonable and outrageous notions, slandering himself and his wife.

Finally, it might be argued that there was no dilatation of the pupil observed in this case, which is usually set down as a characteristic symptom of mania; but according to Bucknill and Tuke this is by no means the case, and Bell says there may be either dilatation or contraction.

In a paper on this subject by Dr. Williams, of the Emigrant Hospital, Ward's Island, New York, in the *Am. Journal of Insanity* for October, 1851, he considers the exciting cause of Bell's disease to be typhus poison (he did not discriminate between typhus and typhoid, as is proved by his saying he thought the typhus of Europe might be identical with our typhoid). He gives the case of a patient, who in the second week of typhoid, developed Bell's disease. In other points he agrees with Dr. Bell. The loathing of food in our case, except as toward that prepared by his wife, as already mentioned, does not seem to have been very marked. He took milk and liquids freely while I saw him, and at the asylum; but this point is not specially mentioned in the hospital records.

Bucknill and Tuke, in the article on acute mania, in their book, speak of one variety of it, called "Bell's Disease, or Exhaustive Mania. The attack is sudden, and loss of sleep, delirium and loathing of food are the prominent symptoms."

It seems very unfortunate that no autopsy was made in this case, but that was not possible.

The diagnosis of the case has been to me a matter of extreme doubt and the one given is perhaps open to criticism, which I shall be glad to have; the very doubtfulness of its diagnosis was the reason which led me to bring the case to the notice of this Society.

PERCENTAGE OF SUCCESS IN RE-VACCINATIONS WITH HUMANIZED VIRUS.

By J. Henry Davenport, M.D. Harv.

The following thirty-nine cases of re-vaccination are published, not because they presented any peculiar features, but with a view to help establish the percentage of successful results which physicians can expect to obtain in re-vaccination with humanized virus. They occurred at Deer Island, under the charge of the writer, and of Dr. S. H. Durgin, the Port Physician. On Dec. 31st, 1871, a case of mild though unmistakable varioloid broke out in the Girls' Reform School. This establishment occupies a wooden building, apart from the other public institutions on the Island, and at a considerable distance from them. No one is allowed access to the school save those in immediate charge, and the superintendents and physicians. At the outbreak of the varioloid, there were forty girls in the school, all of whom had already been vaccinated. How the disease had penetrated to this secluded spot, apparently so far removed from communication with the outer world, was a mystery; though the reception from the city of certain bundles of clothing some weeks previous seemed a possible channel. The patient was at once removed to the Quarantine Hospital, and the premises fumigated with sulphur.

At the time of this outbreak, Dr. D. was in possession of a young patient in the eighth day of vaccinia, with two fine large vesicles extremely rich in virus. It was at once resolved to vaccinate the whole school from this person's arm; this was carefully and faithfully done, the virus being transferred, yet warm on the lancet, from arm to arm.

On the ninth day (Jan. 8th), the 39 re-vaccinations were examined; in 25 cases, the matter had produced no appreciable effect, and there were no appearances beyond the slight clotted scab or crust which follows every attempt at vaccination; of the remaining fourteen (14), nine (9) presented more or less imperfect vaccine sores, with a varying areola, and little or no umbilication; while five (5) presented the appearance of normal primary vaccinations, with typical areola, umbilicated vesicle, and tenderness of the axilla.

On the fourteenth day (Jan. 13th) after the appearance of the first case of varioloid, a second appeared. Curiously enough, the patient was one of those on whom the re-vaccination had not taken in the least. The disease was mild, though easily diagnosticated by several distinctly umbilicated pustules. It was followed by no other cases.

On the 15th day (Jan. 14th), a second examination was made. The crust was still adherent in nine cases. The ratio of success in the 39 cases is by calculation about 35 per cent., which, I believe, is higher than is generally obtained, owing, probably, to the use of absolutely pure, fresh, living virus transferred so directly from arm to arm. Below is given a tabulated view of the fourteen successful cases.

Fourteen selected Cases from 39 Re-vaccinations with Humanized Virus.

Patient revac. Dec. 31st.	Previous vaccinations.	Examination on ninth day.	Examination on fifteenth day.
No. 1.	Good single scar, with pits.	Appearances normal.	Crust umbilicated, slightly detached.
2	Two good scars.	Imperfect.	Crust slightly umbilicated, and detached.
3	Three large, but faint scars.	Imperfect.	Crust very small, but umbilicated.
4	Two good scars.	Imperfect.	Crust fell off on fourteenth day.
5	One small, distinct scar.	Normal.	Crust still firmly attached.
6	Two good scars.	Imperfect.	Crust partially detached, somewhat umbilicated.
7	One good scar.	Imperfect.	Crust fell off on thirteenth day.
8	Very faint scar.	Imperfect.	Crust detaching, not much umbilicated.
9	Two good scars.	Imperfect.	Crust scratched off.
10	Two good scars.	Imperfect.	Crust adherent, and not umbilicated.
11	Two good scars.	Normal.	Crust came off on fourteenth day.
12	One faint scar.	Normal.	Two crusts, not yet at all detached, and umbilicated, most excellent.
13	One faint scar.	Normal.	Crust came off on fourteenth day.
14	Two good scars.	Imperfect.	Crust still adherent, and umbilicated.

Boston, Nov. 1, 1872.

Progress in Medicine.

REPORT ON DISEASES OF THE THROAT.

By F. I. Knight, M.D. Harv.

(Concluded from page 358.)

The Electrolytic Treatment of Naso-Pharyngeal Polypi.—Dr. Paul Bruns, assistant in the surgical clinique at Tübingen, in an article on this subject (*Berliner Klin. Wochensch.*, July 1, 1872), reports a case* treated in the clinique of his father, a short notice of which has already appeared in the latter's work on "Galvano-Chirurgie." A young man nineteen years of age, with a large naso-pharyngeal polypus, appeared at the clinique in November, 1865. Treatment by means of Electrolysis was attempted, but given up after six applications on account of want of noticeable improvement and of the proper apparatus. In December, 1866, the tumor was extirpated by means of a wire sling, but there remained a small part, which could not be immediately removed on account of profuse bleeding and faintness. The patient appeared again at the clinique towards the end of the year 1868. The tumor had grown to a much greater size than before the extraction.

It now caused a very considerable disfigurement of the face, which was noticeable at the first glance. Nearly the whole of the left half of the face appeared pushed up, the left half of the nose was noticeably broadened, the left nostril much dilated and filled up by a pale-red smooth swelling. The fossa canina and temporalis of the same side were filled up, the whole cheek pushed forward. The globe of the left eye stood several lines farther forward, and was at the same time displaced outwards and downwards. In consequence of this, there existed diplopia, incomplete closure of the lid and impaired action of the internal rectus muscle.

The pharyngeal cavity was nearly completely filled up with a very resistent tumor, which pushed forward between the edges of the artificial slit in the soft palate, which was made previously to the first operation, into the mouth and downwards as far as the lower end of the uvula.

Both nostrils were impervious to the air, the left in consequence of complete stoppage by the nasal part of the polypus, the right in consequence of the pushing of the septum towards this side, and the closure of its posterior opening by the growth. Respiration and deglutition were rendered difficult. Hearing on the left side and the sense of smell were entirely lost. There existed also a condition of great general debility and frequent somnolency. From the above appearances the diagnosis of a so called retro-maxillary tumor (Langenbeck) was made, the extirpation of which it was thought could only be made by means of a temporary (osteoplastic) resection of the upper jaw. Instead of this, the attempt to destroy the tumor by electropuncture was repeated, and this treatment was commenced May 2d, 1869. The electrolytic treatment was continued to the end of March, 1870, and during these eleven months there were made one hundred and thirty applications, sometimes daily and sometimes at the interval of one or several days. The duration of one application was ten to fifteen minutes. After the first sitting, the left nostril was a little pervious to the air; after the tenth sitting, there was an evident diminution in the size of the pharyngeal part of the polyp. It continued gradually to diminish in size, and after forty sittings the anterior end of the nasal part was three centimetres removed from the edge of the nostril. There was notable improvement in breathing through the nose, the globe of the left eye was less prominent, its movement less hindered, and there was no diplopia. After sixty sittings no exophthalmos existed; the nasal part of the tumor was four centimetres from the nasal opening. After eighty sittings the polyp was five centimetres from the nasal opening; the pharyngeal part was no longer visible in the cleft of the palate, and could only be reached by means of a curved needle. After one hundred sittings, by rhinoscopic examination there was seen in the remainder of the tumor, which was of the size of a walnut, a deep ulcerating hole covered with purulent secretion which was soft to the touch, friable, and surrounded by resisting edges. After one hundred and thirty sittings, at the conclusion of the treatment, the outward deformity of the face, the prominence of the whole left upper half of the face, and the dislocation of the globe of the eye had disappeared. Both nostrils were pervious to the air, the nasal part of the polyp had entirely disappeared, the pharyngeal part was no longer visible in the cleft of the palate, and only a hard knot of the size of a bean remained on the posterior edge of the vomer. Respiration and deglutition were unimpeded; hearing in the left ear was nearly normal. Up to March, 1872, there had been no sign of a recurrence of the growth in this patient; he had remained in the hospital as an attendant.

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* An allusion to this article has been already made in the report on Electro-Therapeutics, Oct. 31, 1872, but the great importance of any aid in treating this most troublesome affection leads me to give the details of Dr. Bruns's case, and some particulars not given by Dr. Lincoln.

Dr. Bruns then gives abstracts of eight other cases of naso-pharyngeal polypi, which had been successfully treated by electrolysis. Five had been observed by Nélaton, two by Ciniselli, and one by Fischer.

In six of these, there was a complete cure, and in the remaining two the cure was incomplete; in the first in consequence of intercurrent typhus fever, which proved fatal, and in the second because the report was made before the conclusion of the treatment. In none of these cases had a recurrence occurred. The duration of the treatment in those cases where it is stated, is reported to have been as follows: six sittings, nine sittings at long intervals, six sittings within six weeks, and six sittings within about three months. In these cases, where the application was made at such long intervals, the current employed was of much greater intensity than in the case of Professor Bruns. In one of Nélaton's cases an operation had been previously performed by means of re-section of the hard palate, and there was a recurrence of the growth after three months. Eight months after the cure by electrolysis, there had been no recurrence.

Dr. Bruns does not claim that this method of treatment can be employed with success in all cases, and, indeed, mentions a case already reported by himself (*Berliner Klin. Wochenschr.* 12 u. 13, 1872), in which, after unsuccessful employment of electrolysis, extirpation was performed.

The histological character of the tumors successfully operated upon by electrolysis seems to have been fibrous; in the one unsuccessful case the tumor is described as being composed of a tissue in part purely fibrous, and in part very rich in cells approaching the sarcoma. Contrary to the custom in the treatment of tumors situated in other parts of the body, experience seems to show that it is better to employ a weak current, frequently repeated, than a strong one at longer intervals; the close proximity of the brain and the serious local disturbance which might be set up by the strong current, would indicate caution in this respect.

Dr. Bruns does not consider that in any case a diminution of the tumor was due to catalytic or escharotic action alone, but to both combined. In conclusion, Dr. Bruns says that there is inducement enough in previous experience to warrant the employment of electrolysis in other cases, even if we cannot share the enthusiasm of Dolbeau, who characterizes its employment as "une méthode qui parait destinée à faire disparaitre toutes celles qui l'ont précédée."

On the Differential Diagnosis and Treatment of Bronchocele.—Dr. Morell Mackenzie (*Lancet, May* 4th and 11th, 1872) gives an interesting paper on this subject, which he had read before the Hunterian Society.

He says that since Coindet discovered the medicinal value of iodine, the therapeutics of goitre have remained almost stationary. Whilst, however, iodine exercises such a beneficial influence over some forms of goitre, in others it is quite inoperative, and hence it becomes important to differentiate the varieties of the disease which are met with in practice. Dr. Mackenzie divides bronchocele into seven varieties, viz.: (1) simple or adenoid, (2) fibrous, (3) cystic, (4) fibro-cystic, (5) fibro-nodular, (6) colloid, and (7) vascular.

The disease may present the characteristic features of any one of the types referred to, or many of the different varieties may be associated together in varying degrees. The internal administration of iodine is a specific for the endemic variety of *simple* or *adenoid bronchocele*; a·d, though it likewise often cures sporadic cases, it is frequently unavailing.

Simple hypertrophy occurring in weak anæmic girls, is most effectually treated by iron and proper hygienic measures. Cases not yielding to internal treatment may almost invariably be cured by counter-irritation, or the internal and external treatment may be combined. The liquor epispasticus of the British Pharmacopœia, applied about twice a week on alternate sides of the throat, is the remedy which Dr. M. usually employs. Electrolysis had also proved of great service in some cases. Of the fifty-four cases of simple goitre of which notes were taken, forty-seven underwent treatment. In thirty-five the enlargement entirely disappeared, five were lost sight of after a few visits, and in seven no appreciable alteration took place.

Fibrous Bronchocele may attack either lobe, the isthmus, or the whole gland, but it is comparatively rare that the isthmus alone is affected. To the touch fibrous goitre is smooth, hard, and unyielding. It does not, as a rule, cause any disturbance of function, but in some cases it presses on the trachea and produces dyspnœa. When once established it never disappears spontaneously, though it may occasionally be developed into the fibro-cystic or fibro-nodular varieties. The treatment which has been found most successful in this variety by Dr. M., is the introduction of a twine seton passed transversely through the whole substance of the gland.

Counter-irritation, or applications of tincture of iodine or iodine ointment, or the injection of a solution of iodine, have proved quite unavailing. Out of one hundred and one cases of the fibrous variety which came under notice, in thirty-one the tumor was so small and the inconvenience so slight that treatment was not recommended; and nine patients, who were told that the disease was not dangerous to life, declined treatment. Of the remaining sixty-one, in forty-two the result was completely successful. In eleven, there was considerable improvement; in five, no change, and in three the parties ceased to attend before the result could be ascertained. In the two illustrative cases introduced by Dr. M., the dyspnœa was relieved within a day or two after the introduction of the seton.

The treatment of *cystic* goitre which Dr. M. likes best, is the conversion of the cyst into a chronic abscess. The treatment which most rapidly produces suppuration also most effectually arrests the hæmorrhage. The method of procedure is as follows: 1st. Empty the cyst; when practicable, make the puncture as near as possible to the median line in the most dependent portion of the tumor. As soon as the trocar is felt to pierce the cystic wall, it should be withdrawn and the canula passed further in by means of a blunt pointed key. The fluid having been withdrawn, a solution of per-chloride of iron (two drachms to the ounce), is injected through the canula by means of a syringe, the plug is inserted, and the canula secured in position by a strip of plaster. The injection of iron is repeated at intervals of two or three days until suppuration is established. When this point is reached, the tube is withdrawn, poultices are applied, and the case treated as a chronic abscess. When there is more than one cyst, the others can frequently be opened through the cyst originally punctured, and in this way some scars may be avoided. Of thirty-nine cases of *cystic goitre*, thirty-eight underwent treatment; all of these were completely cured.

The treatment of a case of *fibro-cystic* goitre consisted in the evacuation of the cysts and the injection of iron, and after the obliteration of the cysts, the introduction of a drainage-tube, from left to right, through the entire mass.

Great induration remaining, two caustic darts were introduced. By this treatment the circumference of the throat was reduced five inches and a half.

In *fibro-nodular* bronchocele, treatment has seldom any beneficial effect.

Of two reported cases of *colloid bronchocele*, one was treated by electrolysis, and the other by a seton, both unsuccessfully. Dr. M. thinks that with his increased experience both of these cases might have been successfully treated by irritating setons or caustic darts.

No case of the *vascular* form of bronchocele occurred. The rule which Dr. Mackenzie has adopted with reference to the advisability of surgical interference in cases of goitre is, *not to recommend* patients to undergo treatment unless there is serious embarrassment of function or continuous increase of the tumor; but, as none of the various methods of treatment employed by him have hitherto been attended by fatal results in his practice, he has always been willing to carry out treatment when the patient desired it, on account of disfigurement.

Paralysis of the Abductors of the Vocal Cords.—Dr. Franz Riegel, Privat-Docent and First Assistant in the Medical Clinique at Würzburg (*Berliner Klin. Woch.*, May 13th and 20th, 1872), says that paralysis of one or a few muscles of the larynx is seldom met with; but when it does occur, it is generally myopathic; much more rarely does it happen that only a single muscle or a small group of muscles is paralyzed in consequence of a central lesion, or one affecting the vagus and recurrent. He believes the opinion of Gerhardt, that, in case of an affection of the recurrent only, a single group of muscles may be paralyzed, namely, the adductors and tensors, to be correct, notwithstanding the opposition of Navratil; and refers to a case reported by himself* in which paralysis and change in the voice came on immediately after an operation in a case of struma, evidently from injury to the recurrent nerve. The paralysis affected only a part of the muscles of the vocal cord on the side of the injury; the widening of the glottis was completely unimpeded. Those cases in which the paralysis is incomplete must not be considered as myopathic; for in an affection of the recurrent the paralysis may be incomplete at first, and afterwards become complete. It seldom happens that paralysis of the vocal cords, under ordinary conditions, leads to disturbance of the respiration. Complete paralysis of the recurrent on both sides, under ordinary circumstances, at least, causes no dyspnœa, but complete loss of voice, difficult expectoration and impossibility of forcible cough. There is the same want of dyspnœa in complete paralysis of the recurrent on one side. This is easily explained from the position of one or both vocal cords in these cases. With reference to this point, the views of different authors seem to differ considerably. Many pathologists have spoken of paralysis of the recurrent when the paralyzed vocal cord is displaced nearly or quite up to the median line. Such a conception seems to Riegel to be erroneous. Complete paralysis of the recurrent can never result in a position of the vocal cord exactly on the median line. He does not deny that such a median position can be the consequence of an affection of the recurrent, as a neuropathic paralysis; but in the peculiar median position of the vocal cord there is never a paralysis of all the muscles of the larynx.*

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* Deutsches Archiv für Klin. Med., Band 6.

From this position of the glottis in complete paralysis of the recurrent, the want of dyspnœa, at least under ordinary circumstances, is easily explained. The median position, however, pre-supposes an activity of the vocal cord; it can only occur through action of the adductors, and, therefore, can never be observed in complete paralysis of the cord. Neither is much dyspnœa possible in this form of paralysis, as there is still sufficient room for inspiration and expiration, as the glottis now in a manner assumes a mean position, the resultant of those two positions, which correspond to the two functions of vocalization and respiration. The same thing must naturally hold good for complete paralysis of the recurrent on one side. Here, the conditions for the production of dyspnœa are still more unfavorable. If we ask, on the contrary, which form of paralysis of the vocal cords produces dyspnœa, it is evidently the paralysis of the adductors. This form, also, of paralysis, like the complete paralysis of the recurrent, can occur on one or both sides. Paralysis of the abductors, while the adductors remain intact, is not followed by a mean position of the vocal cords and arytenoid cartilages. One would here, indeed, expect the same position as on the cadaver, with the possibility of approximation to the median line on intonation. Observation shows, however, that this does not occur, or at least such a condition has not been seen in those cases which have been considered paralysis of the abductors. The picture of paralysis of the abductor is characterized as follows: The vocal cord and arytenoid cartilage of the affected side stand near the median line immovable; on deep inspiration, the cord does not move outward, but sometimes a little inward; its capacity for tension and vibration is not materially limited; the voice, therefore, shows no essential change. It may be easily conceived how, on relatively little exertion, dyspnœa can arise from this median position of the paralyzed vocal cord. As the glottis-chink is diminished by one-half, the increased demand for air during any marked bodily exertion cannot be satisfied, and dyspnœa is the result. The only abductor of the vocal cord is the crico-arytenoïdeus posticus. Paralysis of the abductor, therefore, is paralysis of this muscle. Paralysis of the abductors on both sides occurs very rarely.

After citing the cases of Gerhardt, Türck and Biermer, Riegel introduces one of his own, in which there was paralysis of the crico-arytenoïdeus posticus on each side. The patient, a child 4 years old, was said by his parents frequently to throw his head strongly backwards and stretch his throat. On increase of dyspnœa, this position was particularly noticed by his parents. A similar condition obtained in Gerhardt's case, who explained this by the power of the hyo-thyroideus, as antagonist of the crico-thyroideus, to approximate the thyroid cartilage to the arytenoids with relaxation of the vocal cords, and so to diminish the contraction of the glottis caused by tension of the same. The question remains how the position of the vocal cords, which has been mentioned as occurring in case of paralysis of the abductors, is produced. According to theory, paralysis of the abductor, like complete paralysis of the recurrent, would manifest itself by the ordinary post-mortem position of the vocal cord. It would then be distinguished from complete paralysis of the vocal cord by the existence of the power of adduction, and from paralysis of the adductor from the want of ability to move outward from the post-mortem position. Instead of the post-mortem position, however, we find the vocal cords much nearer the median line. We see, therefore, an increased activity of the antagonistic muscles, as we see a preponderating contraction of the flexors in paralysis of the extensors. So we can designate this appearance as paralytic contraction of the vocal cord in the same way as we notice the secondary contractions in paralysis of the extremities. The occurrence of such contractions in case of paralysis has been accounted for by the so-called antagonistic theory, whereby, in consequence of the tonicity of the non-paralyzed muscles, the limb is drawn gradually to one side. But in the larynx, Dr. Riegel thinks a negative factor is more important. When the vocal cord, in case of paralysis of the abductor, is brought into a state of adduction by intonation, cough, expectoration, &c., the power to widen the glottis again is wanting; the cord retains the position into which it has been brought, with the exception of what change may be due to a relaxation of tension. In case of total paralysis of an extremity, the flexors overcome the extensors. In the larynx, on the contrary, respiration being a more important function than vocalization, we see the abductors overcome the adductors in case of complete paralysis. Hence the considerable drawing outward of the cords. If, on the contrary, only the abductor is paralyzed, the adductors obtain the preponderance, and hence a position results near the median line. This last position may only be arrived at gradually. Dr. Riegel alludes to the great rarity of bi-lateral paralysis of the abductors, and says that Gerhardt's case is the only other true one which has been published; one or more cases, however, have been published by Mackenzie, and two by the writer.*

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* Complete paralysis of all the muscles of the larynx will produce only the post-mortem position of the vocal cord, and the arytenoid cartilage.

Successful Tracheotomy performed on a Child of Ten Months (*Union Medicale*, 1872, No. 18); (*Centralblatt für die Med. Wissenschft*, Aug. 23, 1872). Dujardin reports a case of croup in a child ten months old, in which tracheotomy was performed. It was necessary to wear the canula eight months. Now, after four years, a small, tracheal fistula exists. The reporter in the *Centralblatt* says this is the sixth successful case of tracheotomy in children under eighteen months reported in France.

A Remedy for Coryza.—E. Brandt (*Berliner Wochenschrift.* No. 12 and 18); (*Centralb. für die Med. Wissensch.*, No. 29, 1872) reports that for many years he had suffered every autumn with intense coryza, lasting several weeks, and that he has obtained a very favorable effect from the "Olfactorium Anti-catarrh-oicum" of Dr. Hager (acid carbol. 5 parts, spir. vini rectif. 15, liq. ammoniæ fort. 5, aq. dest. 10) inasmuch as the coryza was cured after one day's existence in the first stage, and without, as formerly, invading the trachea.

A few drops of the mixture should be poured on blotting paper and inhaled, care being taken to protect the eyes.*

Reports of Medical Societies.

LYNN MEDICAL SOCIETY. J. O. WEBSTER, M.D., SECRETARY.

APRIL 3, 1872.—*Ovarian Tumor. Iodide of Potassium Treatment.* Dr. Perley reported the case of a young woman in whom, twelve years ago, an ovarian tumor was diagnosticated by Dr. Storer. She has been treated ever since by iodide of potassium, externally and internally; she now enjoys better health than before, and the tumor does not increase in size.

Uræmia without Convulsions.—Dr. Kellam reported the case. A multipara, aged 33, at $8\frac{1}{2}$ months, had albuminuria, the urine being at least two-thirds albumen. She was bled and took colchicum, and improved greatly. After labor, however, there was a pulse of 140, pin-hole pupil, no secretion of urine. She finally became delirious, then comatose, and died. No convulsions at any time.

Idiosyncrasies.—Dr. Graves reported two cases of great susceptibility to the action of medicine.

1st. A young man of 20, for whom he prescribed hydrate of chloral, ʒi. to ℥i. mixed. He took one teaspoonful, in twenty minutes was delirious, and was an hour in recovering.

2. A lady for whom he prescribed pills, each containing $\frac{1}{3}$ gr. of Squibb's ext. nux vomica. She took one after breakfast and one after dinner. In twenty minutes after taking the second, she presented all the symptoms of strychnia poisoning, which persisted for two hours.

Unique Case of Vaccination.—Dr. Emeron reported the case. Hannah, a servants girl of 18, was vaccinated on the 7th of

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* Boston Medical and Surgical Journal, Feb. 25tn. and Sept. 30th, 1869.

* Writers of papers on the Diseases of the Throat and Chest will contribute much assistance in the preparation of the semi-annual reports in this department if they will forward copies of their papers, addressed to this JOURNAL.—EDS.

January. On the 14th, there was a perfect vesicle. Called on the 17th, when she complained of trouble in walking, stiffness and soreness of the labia. Examination showed eighteen perfect vaccine vesicles of the mucous surface of labia, which kept pace with that on the arm and recovered at the same time.

Mother's Mark.—Dr. Emerson reported the case of a woman, 21, primipara, confined 21st of January. The child had the left foot clubbed, and both hands webbed, except the little finger of left hand. Otherwise, it was a fine, healthy boy. This woman had had a club-footed boy before her eyes daily for the first six months of pregnancy. The mother and her sister were twins; finely formed, as was, also, her sister's child, born a short time before. No deformity in family.

Pulmonary Abscess or Empyema. Recovery.—Dr. Newhall reported the case of a young man of 19, who took cold last Fourth of July by lying on the grass. Saw him the Sunday following, when he had a little pain in right side; was not feverish, but languid and with no appetite. In the course of a week, very distinct right pleuropneumonia was developed. It was severe for a week; acute symptoms then subsided, but he had a severe cough and free expectoration. At the end of a month, he was expectorating pus, a half pint coming up if he turned on his left side, very offensive. There was dulness of lower two-thirds of right chest, dyspnœa, constant cough, frequent pulse, great emaciation.

The cough was controlled by morphine and chloral, iodine was applied externally, the atomizer was used freely with chlorate of potash, ℥i. to Oij., and carbolic acid, ʒi. of the solution to ℥viij.; cod-liver oil, milk, ale, whiskey, wine, and two grains per day of quinine. His appetite was pretty good for two months, then poor, but he managed to keep on with the milk and oil. He began to improve about the first of November; by the first of January the cough was gone, and the respiration good, and by the end of that month he was entirely well, weighing fifty pounds more than ever before. It is still a question with Dr. N. whether the patient had pulmonary abscess or empyema.

Case of Empyema.—Dr. Newhall also reported the case of a child of 7, to whom he was called the first week in January, with fever, head symptoms, vomiting, anorexia, delirium at times, insomnia, a slight cough. Employed leeches, ice and a blister to neck, bromide and iodide of potassium. He considered the case one of tubercular meningitis and expected a fatal result; but at the end of two weeks the child began to rally, appetite improved, and in a fortnight he was well of the head symptoms, but weak, and still had a slight cough.

Two weeks ago, he was called to see the same child. He had cough and loss of appetite, and on the left side, between 6th and 7th ribs, an inch behind nipple, a tumor with decided fluctuation. Left chest dull on percussion, and little air entering lung; left chest enlarged. Last Saturday, the tumor was opened with a lancet, discharging a quart of sero-purulent fluid. Air was freely drawn into the opening at each inspiration. A wet compress was applied, and next day a poultice. Wine was given freely. The abscess is still discharging, the patient much improved.

July 3.—*Asthma.* Dr. Graves reported a case of asthma, of four years' standing, in a child of 6 years. Nothing had ever given relief, and the attacks had always lasted two or three days. Dr. Graves being called to him in an attack, gave fluid ext. lobelia, gtt. iij. every fifteen minutes, with no relief. Then gave fluid ext. stramonium in the same way, with perfect relief within an hour and a half.

Dr. Webster had found the best results from the use of 15 to 20 grain-doses of iodide of potassium, with lobelia as a palliative. Has now a case in which he gives a hypodermic injection of morphia whenever an attack comes on, with immediate relief.

Dr. Emerson had treated a case, some two years ago, with iodide of potass. grs. xx. ter die, continued for two or three months, with apparent cure, the disease having never since returned.

Menorrhagia.—Dr. Pinkham reported a case of menorrhagia, the woman having flowed three weeks out of four for several years, not more copiously than in ordinary menstruation. Had been treated by various physicians, none of whom had made an examination. Dr. Pinkham found a minute polypus hanging from the cervix, attached first within the os. It was removed by twisting, and there has been no hæmorrhage since, except normal menstruation.

In another similar case, no cause was revealed by examination and dilatation by tents, but the tents cured the hæmorrhage.

Several Cases of Labor.—Dr. Cahill reported the cases.

1st. Arm presenting and membranes ruptured on his arrival. Called Dr. Galloupe, who delivered by version. Child dead. Gave ergot. No further trouble.

2d. A woman, aged 40, had been in labor thirty hours, attended by a woman, who had so great confidence in Nature as to think that everything would come right, although an arm was in the vagina. There was complete exhaustion, with no pains. Etherized and delivered by version; child dead. Got good contraction. Two hours later, there was considerable flowing and vomiting. Used ergot, ice, pressure, &c., but without avail, and the patient died nine hours after labor.

3d. A case of prolapse of cord, pains active; head so low that version was impossible. Pulsation would cease with a pain and then begin again, but ceased, finally, when the head was on the perineum. The child was quickly born, and artificial respiration for half an hour was rewarded by its recovery.

4th. Called to a woman who had flowed very profusely, os not dilated, no pains, at eight months. History of flowing a month before. Applied tampon. Next morning, labor came on and was completed before the doctor's arrival, the placenta coming first. Child dead. The woman did well.

Imperforate Hymen.—Dr. Galloupe reported the case of a girl of 13, to whom he was called for pain in abdomen and dribbling of urine. Finding retention, he used the catheter and drew three quarts of urine, with relief. Was called again the same day and next morning, when he examined and found an imperforate hymen, which he incised and drew off a quart of tarry fluid.

Four weeks later, the same symptoms recurred, and the opening in the hymen was found to have closed. A considerable portion was removed, and there has been no further trouble.

Three Cases of Eye Injury.—Dr. Galloupe reported the cases.

1st. A stone mason, whose eye was struck by a piece of stone. Two or three hours afterwards, the anterior chamber was entirely full of lymph.

2d. Carpenter. A nail flew back and struck his eye. He kept at work, and the eye became completely disorganized.

3d. A man injured his eye by a butcher-knife. Hernia of the iris ensued, which could not be returned; the portion of iris protruding was cut off and atropia used, with recovery. The iris now is pyriform, adherent to cornea at point of injury, but contracts and dilates well.

Sept. 4th.—*Puerperal Convulsions. Morphia Subcutaneously.*—Dr. Emerson reported the case, in a primipara, aged 30. Labor progressed slowly but favorably from 10, A.M., of August 11th, to 4, A.M., of the 12th, when a severe convulsion occurred. She was etherized and delivered with forceps; child healthy. The convulsions continued, and would not yield to chloral; at 2, P.M., a subcutaneous injection of morphia and atropia was given, controlling the spasms for three hours. Two more injections were given, the last at 10, P.M. The patient had no more convulsions and convalesced well.

Diphtheritic Paralysis.—Dr. Webster reported the case in a boy of 5 years, of a weakly family. He had diphtheria in May, followed by general loss of power, from which he gradually recovered, and was nearly well when, in July, a younger sister died. He was much affected by her death, and immediately began to fail. His paralysis steadily increased until it became total. Treatment, by tonics, counter-irritation and stimulating baths, &c., was of no avail, and he died in about a fortnight after his sister. Dr. Webster attributes the renewal of his disease to the effect of his mental sorrow on his physical system, and thinks the influence of mind on body is not yet so fully recognized as it should be by the profession.

Uterine Polypus. Autopsy.—Dr. Webster reported the autopsy of a patient of Dr. Goodell's. A married lady of 30, never pregnant, had suffered for two or three years from menorrhagia, her menses coming on regularly and moderately, but followed by profuse hæmorrhage. Had been treated by various regulars and irregulars, but never locally. When she came under Dr. G.'s treatment, she was too weak for local treatment, or even for a thorough examination, and she soon afterwards died of complete anæmia.

Autopsy showed a small polypus, an inch and a half long, attached just within the internal os and hanging into the cervix. The ovaries were in the same condition as that of senile atrophy. Kidneys diseased, but not fatally so, and spleen enlarged.

VERATRUM VIRIDE AS A HÆMOSTATIC.—J. W. Collins, M.D., of Jackson, Tenn. (*Am. Practitioner*, Sept., 1872), has employed this drug in different forms of hæmorrhage with great success. He esteems it the promptest as well as the most reliable of all the means for controlling both active and passive hæmorrhage. In epistaxis, placenta prævia, menorrhagia, &c., it was given satisfactorily in doses of from 3 to 15 drops, repeated according to the urgency of the case.

Medical and Surgical Journal.

Boston: Thursday, November 28, 1872.

THE FIRE AND THE MEDICAL PROFESSION.

The great fire in Chicago last year made numerous poor men among the doctors. It spared neither high nor low, rich nor poor. It ruined fortunes which had been industriously earned, and turned into the cold street men of all trades and professions, without shelter, and without the implements with which to do their work and to earn their daily bread. The medical man suffered with the rest and in the same way.

With us in Boston, the case has been far different. If our professional brother has been touched, it has been in a far different way. He has his house still over his head, and whatever had been laid up by him has, as a rule, only been broken in upon by the failure of some insurance company to whom he has a note to pay. And that note he is rejoiced to know has kept him from the fire for several years past.

But the first of January is to come, and when his bills are ready to be sent out, he is going to find that his last year's income cannot be repeated. The rich merchant who paid large bills without a moment's hesitation, may need a discount or an extension of time. The clerk who always paid his bills unhesitatingly, is, perhaps, out of business for the winter. We must remember that there are those too proud to ask, and who will even delay seeking medical aid, because they never were obliged to be dependent, and who prefer to suffer rather than to run in debt.

At the time of writing this, there still stands that immense wooden fabric, the musical tinder-box, threatening fire and death to the south and central parts of Boston. Almost unguarded by day and night, it reminds us that when the inhabited part of the city is exposed to its blast, the medical men, as well as the merchants and the clerks, the porters and the sewing-girls, are to be turned from their places of business.

And what is to prevent conflagration at any time from attacking our Medical College, as it did those in Chicago? And if that should fall a prey to flames, not only Harvard University, but the medical profession throughout the country would lose that fine museum, the work of three-quarters of a century, and the result of the labors of such men as John C. Warren and John B. S. Jackson.

We allude to this matter now, as a fitting time. The officers of that school have undertaken an experiment which they do not mean shall fail. They have cut down their own pay for the purpose of advancing the cause of medical education. Feeling that the loss of income to the University by fire was more than it could bear, they have come forward simply, in common with the officers of the other departments, to help sustain a common cause. The school is in the midst of buildings of an inflammable character, and of a population not particularly cautious in their dealings with fire. Certain portions of the building have iron shutters, but we have learned from Chicago and San Francisco and Troy the little value to be placed on iron shutters alone. That museum, if lost, could never be replaced. Is there not a possibility that the profession in Massachusetts may do something to protect it? Does any one know how much it would cost to make a fire-proof building large enough to hold that cabinet?

Murder with a Needle.—The following case recently occurred at Lemberg, in Austria, and is extremely interesting in its medico-legal aspect. The wife of the keeper of the anatomical cabinet of the medical school in that place died very suddenly without any symptoms which could satisfactorily account for her death. An autopsy was made, which threw no light on the case, but, on a more careful search, a small red point looking like a flea-bite was seen in the cardiac region. On cutting down here, a small needle-point was found imbedded in the right side of the heart. Her murderer, evidently acquainted with the anatomy of the body, had probably killed her while asleep. The husband was arrested and held for trial.

The Month.

Small-Pox in Boston.—The mortality reports of this disease for the past month, present very suggestive figures. Here they are, giving the number of deaths each week:

For the week ending Nov.	2,	16
" " "	9,	31
" " "	16,	28
" " "	23,	47
Total,		122

Surely from this rate of progression, a single inference is alone possible, that small-pox has a most serious, not to say alarming hold on our community. The number of deaths from the disease the last week was greater than ever before occurred in Boston. That it represents the entire mortality is hardly probable; or that the mortality report itself represents accurately the actual amount of variola among us—the number of cases of the disease, mild and grave—is hardly to be relied upon. The inevitable presumption is that we have to deal with an epidemic of small-pox in Boston, which threatens to compare in violence and in mortality, with the epidemics last year in London and in Philadelphia, New York, and Lowell. It is not the part of a medical journal to be an alarmist, but we do believe it well to look the facts squarely in the face.

Meanwhile, in the presence of this grave and increasing pest, what has been done by the health authorities of the city to relieve the community of such an undesirable presence, to enforce preventable measures.

Negatively, the Board of Aldermen discontinued the Albany Street Hospital, on the petition of some frightened people, at just the wrong time, and with no adequate provisions as a substitute. They have almost ignored the existence of a city physician, and of a consulting board. They have allotted insufficient quarters on a distant island in the harbor as a pest-house, and so have put a premium on the concealment of cases of small-pox among people who have no inclination to pass in that place weeks of convalescence or to die either on the tedious passage, or on their arrival there.

But, on the other hand, they have ordered a house-to-house vaccination of the city, on a system which is open to criticism, for its looseness as regards the appointment and pay of vaccinators, the selection of virus and the methods of enforcing their order. They have reported an order for the organization of a new Board of Health, which lies on the table, and which it may be hoped will continue to lie on the table as a most unsatisfactory scheme, to be supplanted by something better. They have bought a lot of land on which sometime to erect a small-pox hospital.

We are aware that the city's calamity, the great fire, is uppermost now in importance, demanding unusual administration for relief and reconstruction. But it requires only a modicum of time and judgment to take immediate measures concerning a pest more subtle, if less destructive of granite warehouses and dollars, than fire. While the aldermen are passing orders concerning the fire, let them divert a little of their attention and enact an order authorizing the city physician to procure a sufficient number of tents, and establish a tent-hospital on the ground already purchased. Such an establishment would fulfil all the requirements of the immediate emergency, and we are not sure that it would not be the very best, in all respects, throughout the winter, if the army experience may be trusted. Such a provision would afford instant relief to many cases of hardship which are constantly coming to the knowledge of physicians, where patients too ill, or too delicate to bear an ocean passage, would gladly welcome such accommodations, when the safety of the inmates of large boarding-houses and hotels also demands their removal.

Something of this kind should be done, and that right speedily. Let it be understood that vaccination is a most important preventive measure, that, efficiently performed, it is an undoubted and most invaluable obstacle to the full development of an epidemic of small-pox, but that with this measure, should go provisions for the isolation of variolous patients. The experience in all epidemics of small-pox proves this.

Disinfection of Air of Sick Rooms.—The three best agents for accomplishing the disinfection of air after smallpox or other contagious diseases are sulphurous acid, iodine and carbolic acid. The best method of employing sulphurous acid is to scatter a little flowers of sulphur upon a heated shovel and carry it about in the room or rooms which are to be disinfected.

Iodine may be used by simply placing a little in an open glass or earthen vessel, and it vaporizes readily at the ordinary temperature of a house. Carbolic acid may be employed by sprinkling a weak solution of it on the floor of the room, or cloths wetted in such solution may be hung about the rooms. A simple apparatus for using this acid is to have a broad band of cotton passing over two wooden rollers over a dish filled with a solution of the acid. As the upper half of the band dries, give the rollers a turn, and the lower half of the band, wet with the solution, takes its place uppermost.

SMALLPOX.—The following statistics relative to smallpox in Hamburgh, where the disease was very prevalent during 1871, have been officially published:—3,301 vaccinated persons took smallpox, and of these 347 died and 2,954 recovered. On the other hand, of 710 unvaccinated persons who had smallpox, 700 died and 10 recovered. If these figures are reliable, who, in future, can doubt the efficacy of vaccination?

SUICIDES IN FRANCE AND ALGERIA IN 1870.—According to the report of the administration of criminal justice for 1870, just published in the *Journal Officiel*, there were brought to the knowledge of the Public Minister 4,157 suicides, 81 per cent. of which were by men and 19 per cent. by women. As hitherto, the favorite methods were by hanging and drowning. The report divides the presumed motives for this crime into six great divisions—misery and reverse of fortune, 383; family troubles, 512; love, jealousy, debauchery or misconduct, 701; various ills, 930, of which 515 were because of physical suffering; cerebral disease, 1377; and 22 were authors of capital crimes. For the remaining 232, no probable cause could be determined. As regards age, eighteen were below 16, and twelve hundred and forty-three were over sixty.

DUST RESPIRATORS FOR FACTORY OPERATIVES.—Good service is being done in England by calling attention to the great prevalence of lung diseases among the operatives in dust abounding factories, such as those where cotton, iron, china, flax, lime, &c., are worked. A simple and effective respirator, consisting of a light, flexible frame-work, lined with a filter of cotton wool, has been put into the market by Gratton & Co., of Dublin. The protection afforded by this apparatus is effectual, and it is simple and cheap.

FOOT AND MOUTH DISEASE IN THE HUMAN SUBJECT.—An unusually severe case of this "terrible malady" is reported in the *British Medical Journal*, Oct. 26, 1872, by Dr. W. T. Briscoe, of Chippenham. The patient was the daughter of a farmer, and had assisted in a large dairy, the cows of which had been affected during the summer. She occasionally fed and milked these cows. In her the disease lasted from the middle of August till early in October before she was able to come "down stairs." Among the symptoms were—peculiar odor, swelling and protrusion of tongue and pain in it, deglutition almost impossible, foul discharges, sloughs, pulse 104 to 108, temperature 99 to 101·5 degrees. In consultation, Mr. Spencer confirmed the diagnosis. Treatment consisted of, at first, aperients, and a mixture of bark, chlorate of potassa and ammonia, rinsing, &c. Later, warm poppy fomentations, beef-tea, milk, cream, &c., mouth well syringed with weak solution of carbolic acid, and Condy's fluid. Hæmorrhage of two ounces was arrested by pressure and perchloride of iron. Dr. Briscoe had never seen so severe a case; in three young children, who had drunk the milk of diseased cows it was much milder, and yielded to a little caustic, and tonic treatment.

SIR THOMAS BROWNE maintained that every man at his birth was nine months old; and Coleridge has said, probably in reference to this, that "the history of a man for nine months preceding his birth would probably be more interesting and contain events of greater moment than all the threescore and ten years that follow it."

DR. WOODWARD, the accomplished microscopist of the Army Medical Museum, has been making minute investigations on the subject of the equine influenza, but fails to detect, either in the atmosphere or in the nasal discharge from infected animals, any organisms which could be specifically connected with the disease.

MR. WALTER THOMPSON, of London, has paid the first moiety of the sum of £1000, promised by him to the committee for securing a complete medical education for women in Edinburgh.

THE Augusta Medical College, of Georgia, has been made the Medical Department of the University of Georgia.

Medical Miscellany.

The Presbyterian Hospital, on the corner of Madison Avenue and Seventieth Street, New York, was opened with appropriate services on the 10th of October. The hospital is ready to receive patients of every country, tongue and creed. The trustees call for an endowment of $250,000; of this sum $50,000 had been subscribed before the dedication; at this meeting, the President, James Lenox, Esq., offered to give $125,000 toward the endowment fund, on condition that a similar amount should be subscribed by others.

Prof. T. Gaillard Thomas.—The statement that this gentleman has resigned the chair of Obstetrics in the College of Physicians and Surgeons in New York is denied by the Secretary of the Faculty.

New Insane Asylum in California.—The Commissioners, appointed for the purpose by the Legislature of California, have selected a site near Napa City for a branch Insane Asylum. The estate comprises 208 acres of land, with fine sites for buildings, and good facilities for water supply, sewerage, &c. The State has appropriated nearly $800,000 for the erection of buildings.

Chicago Medical Register.—Drs. T. Davis Fitch and Norman Bridge have given the profession of Chicago and vicinity a handy little volume, containing all the information which a medical man needs concerning hospitals, institutions and the like in that city. The *Medical Register* has now become a fixed fact in every city where it has once been established —every active professional man requires it as much as he does his scalpel or his stethoscope —and we bespeak for the *Chicago Register* a ready sale and the success which it richly deserves.

Galvano-Emesis.—Dr. Fox, of Birmingham, England (*Brit. Med. Jour.*, Nov. 2, 1872), has successfully employed galvanism for the purpose of producing emesis in two children poisoned by fungi mistaken for mushrooms. In these cases he applied one of the poles to the top of the œsophagus and the other to the epigastrium, using the interrupted current. Vomiting was immediately produced in both cases, and a quantity of the poisonous fungus ejected.

Dr. Albert Reynolds, of Clinton, Iowa, has been appointed Medical Superintendent of the Iowa Hospital for the Insane at Independence.

The present Boston Board of Aldermen having refused to establish a Board of Health, the citizens propose to elect a healthy Board of Aldermen.

La Gazette Obstetricale has been started in Paris, under the editorial care of Prof. Verrier.

The Chinese Foot. The Chinamen, to appear in easy circumstances, are in the habit of wearing ridiculously long finger-nails; from one or two inches to half a foot, which require shields to protect them from injury.

Very few bare-footed persons are to be seen in Pekin. The beggars, devoid of everything else, are seldom destitute of shoes.

Long toe-nails are impossible. They must be pared even to the quick, to prevent injury and severe pain from the shoe, the continued pressure and friction of which often cause serious troubles, suppuration, and even destruction of the bones.

The Chinamen admit the absurdity of their small shoes, but custom, fashion, and the dread of innovation are too strong even for celestials.

Correction.—On page 368 of this volume, 1st column, 11th line, for "H. Palmer" read *J. C. Palmer.*

Books Received.—Pathology, Diagnosis and Treatment of the Diseases of Women. By Graily Hewitt, M.D. Lond., F.R.C.P., &c. Second American from the third London Edition. Philadelphia: Lindsay & Blakiston. 1872. Pp. 751. (From A. Williams & Co.)

Pamphlets Received.—Consumption and the Breath Re-breathed: A Word with Reviewers. By Henry MacCormac, M.D. London. 1872. Pp. 12.—Third Annual Catalogue of the Worcester County Free Institute of Industrial Science, with Plan of Instruction. Worcester. 1872. Pp. 23.—Questions in Surgery. By William Warren Greene, M.D., Professor of Surgery in the Medical School of Maine, &c. Portland. 1872. Pp. 179. (From the Author.)

Died,—At Marblehead, 25th inst., Dr. H. H. F. Whittemore, 42 years 9 months, a graduate of Harvard College in the class of 1852.

Deaths in sixteen Cities and Towns of Massachusetts, for the week ending Nov. 16, 1872.

Cities and Towns.	*No. of Deaths.*
Boston	147
Charlestown	21
Worcester	14
Lowell	16
Milford	4
Chelsea	5
Cambridge	16
Salem	4
Lawrence	13
Springfield	4
Lynn	10
Gloucester	4
Fitchburg	2
Newburyport	6
Somerville	5
Haverhill	4
	275

Prevalent Diseases.

Consumption	44
Typhoid Fever	25
Pneumonia	18
Diphtheria and Croup	12
Scarlet Fever	10

There were twenty-eight deaths from smallpox in Boston and four in Charlestown.

George Derby, M.D.,
Secretary of State Board of Health.

Deaths in Boston for the week ending Saturday, November 23d, 151. Males, 71; females, 80. Aneurism, 1—bronchitis, 3—disease of the brain, 4—cyanosis, 1—cancer, 1—cholera infantum, 1—consumption, 22—convulsions, 5—croup, 2—diarrhœa, 1—dropsy, 2—dysentery, 1—diphtheria, 1—epilepsy, 1—erysipelas, 2—scarlet fever, 6—typhoid fever, 9—gangrene, 2—gastritis, 1—disease of the heart, 4—intemperance, 2—disease of the kidneys, 2—congestion of the lungs, 1—inflammation of the lungs, 9—marasmus, 6—old age, 3—paralysis, 1—pleurisy, 2—peritonitis, 1—puerperal disease, 1—rheumatism, 1—scrofula, 1—smallpox, 47—stomatitis, 1—whooping cough, 2—unknown, 1.

Under 5 years of age, 46—between 5 and 20 years, 21—between 20 and 40 years, 50—between 40 and 60 years, 18—above 60 years, 16. Born in the United States, 83—Ireland, 36—other places, 32.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

New Series.] Thursday, December 5, 1872. [Vol. X.—No. 23.

Original Communications.

IMPROVEMENT IN CATARACT OPERATIONS.

By Henry W. Williams, A.M., M.D. Harv., President of the American Ophthalmological Society, First Vice-President of the International Ophthalmological Congress at London, Professor of Ophthalmic Surgery in Harvard University.

In the great variety of treatment of eye disease which came under my observation in England and on the Continent at and after the recent Ophthalmological Congress, nothing was more interesting than the disposition everywhere manifested to adopt more reasonable and conservative methods of extraction of cataract in place of the vagaries which have found more or less favor during the last ten years. During this period, two methods especially have emanated from Berlin—extraction by means of scoops introduced within the eye, and the "new method" of von Graefe, termed "linear extraction." Both of these were equally heralded as wonderful improvements upon previous operative procedures, and, according to the statistics furnished by their advocates, gave a larger percentage of success. Unfortunately, the same favorable results were not obtained in other hands, and the first of the methods, by outscooping, although much lauded for a time, has already met its fate and may be dismissed from notice. The second is still more or less employed, though I found it frequently so "modified" that its claims to legitimacy had become doubtful. The objections to this operation were many, and the six years since its conception have been too short a time to warrant the extravagant claims put forward in its behalf, since the frequency of secondary ill consequences, which might be predicted as almost certain to follow it, would, of course, be left out of sight in announcing the immediate results.

Among these objections, one of the foremost was the placing the incision so near the ciliary region, where all scientific oculists are agreed that wounds are dangerous as being liable to result, at some subsequent period, in sympathetic inflammation of the other eye. The chances of separation of the retina, the frequent loss of vitreous during the operation, the necessity for the removal of a part of the iris, and the long-continued manipulation of the eye required for the extrusion of the whole of the lens-fragments through the small wound, were other objectionable features of this method, which could only be tolerated if the proven results justified the clumsy and unscientific means. It seems now to be probable that the substitution of the very narrow-bladed knife of von Graefe for the broad, triangular knife will be accepted as the only permanent and true advance in ophthalmic surgery contributed by the "linear method," the disposition to seek out a more excellent way being almost universal.

The method of M.M. Lebrun and Warlomont, of Brussels, of extraction by a "median section" through the upper portion of the cornea, practised, also, by M. Liebreich through a lower section, seems to offer the happy *tutissimus ibis*, between the large peripheral section of the cornea as originally practised, and the linear extraction. It is certainly more in accordance with the anatomical relations of the parts concerned in the operation, and thus better adapted to ensure the largest ratio of success. These reasonable expectations of good results seem to be fully justified, and I had an opportunity, especially at the clinique of M. Liebreich, to examine a large number of eyes recovered from this operation, where the optical conditions were excellent.

In doing this operation by the upward section, the narrow knife is entered through the cornea, at its very margin, at the point of termination of its horizontal axis, and is passed on in the direction of the diameter of the cornea to make the counter puncture at the opposite point. The incision is then completed, not parallel to the iris as in the peripheral section, but in such a direction that the apex of the slightly curved flap is opposite the upper border of the moderately dilated pupil. From its situation, and its adaptation to the curved surfaces of the lens, this section is most favorable for the easy exit of the cataract, which does not crowd forward and contuse the iris as in Daniel's method, but escapes readily through the pupil and through the wound. No mutilation of the iris is necessary, and the loss of any portion of vitreous humor is not likely to occur, whilst the form of the cut is best adapted for immediate healing.

There is little tendency to prolapse of the iris after this operation, and one of the great dangers of flap extraction is thus avoided, without the necessity for recourse to iridectomy. The scar of the incision soon becomes nearly imperceptible, and being beyond the field of the pupil at its ordinary dilatation it does not impede vision.

The importance of this innovation, already extensively adopted as a substitute for linear extraction, is my sufficient apology for bringing it thus soon to the notice of the profession in America, although I have as yet performed it only six times since my return home. But such a section of the cornea is not wholly a novelty with me. Having always been partial to extraction by some method not requiring iridectomy, I have, sometimes, in eyes where the cornea was large, made the incision terminate at some distance from the corneal border, and the excellent results in these cases would long since have induced me to adopt the "median section" as the best, had I not deferred to the opinions of various authorities who have insisted that wounds at the periphery of the cornea were most favorably situated for immediate union. My own experience, therefore, is not wholly limited to the success of these recent operations, but has been such as to prepare and induce me to accept the facts in favor of the median incision which I lately had opportunity to observe on a large scale in Europe, and I can confidently urge a trial of this operation as offering large chances of favorable results.

The University of Munich, on its four hundredth anniversary, conferred the honorary diploma of Doctor in Medicine on Mr. Simon, F.R.S., D.C.L.

A CASE INVOLVING SERIOUS GUN-SHOT WOUNDS.

By H. W. Sawtelle, M.D., Assistant Surgeon, U.S.A., Washington, D. C.

Corporal M.'D. T., Co. I, 15th Mass. Vols., aged 32 years, a strong, healthy man, was wounded at the battle of Spotsylvania, Va., May 12th, 1864, by a musket ball entering the left thigh just above the external condyle, and, passing upwards and inwards through the muscles of the outer and anterior aspect of the thigh, severely lacerating the soft parts, emerged through the rectus muscle six inches above the knee; again entering at the left seventh rib and lodging. Another ball entered the upper third of left thigh posteriorly, and passing upwards and forwards, injuring the sciatic nerve, lodged and is still encysted near the sciatic foramen; it evidently impinges on the nerve, and accounts for the severe paroxysms of sciatica, which greatly disturb sleep. A third musket ball penetrated the abdomen and intestines in the left inguinal region and lodged. The patient was admitted to the Lincoln Hospital at Washington, D. C., May 26th, 1864, whence he was discharged from the service January 7th, 1865, and pensioned.

The injured thigh is seriously disabled and inefficient. A deep, broad and irregular cicatrix adherent to the femoral periosteum restricts the motions of the thigh and leg, which are affected with acute neuralgia, formication, and impaired nervi-motor function, with depressed temperature. The saphena veins of the thigh are affected throughout with varices. The missile was removed from the left side, and the patient suffers no inconvenience from that wound. The wound of the abdomen resulted in a fæcal fistula, which healed about eight months subsequent to the injury, the contents of the bowels during this period being voided partly through this traumatic opening. The ball was discharged by the rectum, with the fæces, four weeks subsequent to the reception of the wound. The fistula closed with a very thin and extremely sensitive cicatrix, the size of a quarter of a dollar, involving fascia, integument, peritoneum and intestines, which very much resembles a drum-head. The movements of gas and fæces in the intestines can be distinctly felt through this membranous covering, and every jar or strain of the abdominal muscles gives rise to an acute pain at this point, and oftentimes nausea. In order, therefore, to lessen the tension of the muscles during defæcation, he assumes a partial standing posture and presses with the hand in the vicinity of the wound of entrance.

In 1871 this patient was very much reduced in flesh; he had a sallow complexion, and he wore a languid expression. The tongue was constantly coated, pulse irregular and thready, and the assimilative functions were seriously deranged, with functional disturbance of the heart. The hepatic region was tender on pressure, and the abdominal walls were tumid. The injury of the viscera evidently resulted in great derangement of the sympathetic system, which was perpetuated by local chronic peritonitis.

In the latter part of 1871, this patient was gradually failing, and no hopes could be entertained of permanent relief.

October 25, 1872.

FEEDING BY THE RECTUM.—With reference to the use of the pancreas of animals in the formation of nutrient enemata, a further communication on the subject, by Dr. Leube, appears in the *Centralblatt für Medizin. Wissenschaft.* (July 20). He says that the plan of obtaining the pancreas in the ordinary way from the butcher succeeds very well in the autumn and winter. In the warmth of summer, however, the gland very soon begins to undergo decomposition, and in consequence loses its digestive power, and becomes irritating to the intestine, producing rapid expulsion of the material injected. These mishaps may be easily avoided by making a glycerin extract of the pancreas. This extract is quite equal in digestive power to the fresh pancreas, and will remain good for several weeks. Dr. Merkel, of Nuremberg, has made several trials of this modification, especially in a case of iodine-poisoning; and the results have been equally favorable with those following the use of the pancreas itself. He describes the following as the best mode of making the pancreatic injection. The pancreas of a bullock (which is sufficient for three enemata) is finely chopped, and rubbed with 250 grammes of glycerine; and to each third of this, when about to be used, are added from 120 to 150 grammes of finely-divided meat. This mass is digested in the bowel as completely as the meat and pancreas mixture already described. It is important that the mixture of pancreas and glycerine with meat should be injected into the rectum as soon as it is made; for, if it be allowed to stand, the meat swells up, and the injection is thereby rendered difficult.—*Med. Times.*

Progress in Medicine.

REPORT ON DERMATOLOGY.

By JAMES C. WHITE, M.D.

[THE writer has so recently expressed his opinions at length in an American journal* upon the present state of Dermatology, as well as with regard to the most prominent workers and writers in this department, that it would be needless repetition to offer in this report any prefatory criticism upon its general condition. The advances there noted were of so marked a character, chiefly in the field of pathological histology, as to make of modern dermatology almost a new science, and the progress since that time has been mainly in the same direction, but few new books or general treatises of importance having been published in the meantime. It is his purpose to present a brief notice of the current literature of this branch of medicine, confining himself principally to foreign sources of information as those least accessible to American readers. For a very complete record of the recent advances in this department previous to the present year, he would also refer to the admirable Boylston Prize Essay of 1871, by Dr. B. Joy Jeffries, of this city, which has been published by Alexander Moore.]

Skin, Hair, and Nails, their Care and Preservation, their Diseases and the Treatment of the latter. By Dr. A. KLEINHANS, Special Physician for Skin Diseases at Bad Creuznach. With 27 Illustrations. Leipzig. 1871.

THIS little volume of 164 pages is one of a series of medical handbooks for the people, Illustrirte Gesundheitsbücher, of which similar treatises on the teeth, the eyes, the ears, the lungs, &c., have already appeared, written by specialists in these various departments. Dr. Kleinhans is the author of a general work on skin diseases, published in 1866, which, although small, is a very good book both for student and physician. He seems to have done the peculiar work required of him for this publication, too, very satisfactorily. It is no easy task to write down to the understanding of the general public, and at the same time lead them up that long stretch to the level upon which they should stand in knowledge relative to their bodies in health and disease. We have first chapters describing the anatomy and physiology of the skin, and their relations to the functions of the body, and to external influences; then accounts of its changes and appearances in the common diseases to which it is subject, with remarks upon their causes and natural course; and rules for its care in health. Then follow, what we think were far better omitted from all similar works, instructions as to treatment by remedies in disease. It is giving that little knowledge which is often dangerous, never useful. Arsenic and mercurial preparations are used injudiciously enough by physicians, without the extension of such license in their employment to patients as well. The hair and nails are treated of on the same general plan. The final chapter is on the nature of the various popular cosmetics for the skin and hair, and the author does good service to these as well as to the pockets of his readers, by showing how cheap, how dangerous, and yet how useless are many of these fashionable and attractively named preparations, for which they pay such exorbitant prices.

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* American Journal of Medical Sciences, April, 1871.

The wood-cuts, illustrating the anatomy of the various cutaneous tissues and the animal and vegetable parasites of the hair, are excellently done as a whole. If "Die Haut" of Dr. Kleinhans is a fair sample of the whole series, its publication is a handsome and useful addition to the literature of the German people.

Diseases of the Hair: A Popular Treatise upon the Affections of the Hair System, &c. By Benjamin Goddard, M.D., F.R.C.S. London and Philadelphia. 1872.

"It needs no excuse or apology," the author says in his preface, "for bringing before the world a subject much neglected by the faculty, I mean diseases of the hair. . . . The demand for more light upon this much neglected subject led me to give some years of study to this department, and the following pages I offer to the public as a small addition to the general stock of hair literature." This remarkable book, dedicated to the "heads of Great Britain," is in object similar to, though in scope more restricted than that of Kleinhaus above noticed; it is in every way, however, unlike it. Instead of presenting to the profession something new or valuable as the result of his "years of study," or the public with simple and practical instruction, he has spent his time in collecting and putting together, under chapters designated by the title of the various affections of the hair and scalp, a mass of anecdote and petty science, a jumble of truth and fable, which is worthless to the physician, not wholly uninstructive but uncommendable to the people. Even as a popular treatise it was not needed, for it is far inferior in reliability and information to the little work of Dr. Beigel, of London, on the human hair, published in 1869, a praiseworthy book in all respects; and in point of poetical quotation and historical anecdote, to several well-known books on the toilet.

A quotation or two in illustration of the writer's style, and a few words or phrases as specimens of his notion of fit language for common people, selections such as might be made from nearly every page, will sufficiently reveal the character of this addition to the "stock of hair literature." "The soft down of the peach, reflected upon the head of the infant, the ripple of the stream mirrored upon the wavy lock of childhood, or the autumnal hue of the dying leaf, living upon the grey hair of the aged man, all speak in accents powerful to the reflective mind"; from the first page. In another part the physician sees "a child, with its highly sensitive nervous system, the skin thin and transparent, like the waters of a deep lagoon, blue veins meandering upon its surface like rivulets feeding the stream, the ready blush upon the cheek, resembling ripened fruit, and the bright, large lustrous eye, that looks as if it could fathom eternity; then over this the long black or brown eyelashes, and the silken hair floating in the breeze."

Much hair is "exuberance of comate structure"; the head is "a pate"; a man is "a human"; one's hair is one's "crinial" or "comate covering"; and, finally, pulling out all the hair is "aberuncating every hirsute habitant."

On the Treatment of Diseases of the Skin: with an Analysis of Eleven Thousand Consecutive Cases. By Dr. McCall Anderson. London: 1872. Pp. 180.

Dr. Anderson is well known as the author of some excellent books on skin diseases, and a new work by him will be received with great interest. The first part of the present volume contains the statistics of 10,000 consecutive cases of skin disease met with in hospital practice, and of 1000 in private practice, arranged in tabular form according to a clinical system of classification. He divides these affections into two great classes—namely: functional; and organic. The organic is subdivided into two classes—I. Those defined by uniform causes; II. Those not defined by uniform causes. The diseases defined by uniform causes are arranged under four heads

—namely: 1, parasitic affections; 2, syphilitic affections; 3, strumous affections; 4, eruptive fevers. The diseases not defined by uniform causes comprise all affections of the skin not included in any of the preceding groups, and are arranged pathologically under three heads—namely: 1, inflammations; 2, new formations; 3, hæmorrhages.

We will not stop for a critical examination of this system, open to serious objections as such, as it is used mainly for grouping the two series for comparison. Among the functional affections in his list of private cases, the most noticeable feature is the very small number of patients with alopecia, 18 only in 1000; with us the percentage would be much higher. Concerning the vegetable parasitic diseases, he still holds to the opinion that there are four distinct fungous growths, productive of four distinct affections, which under no circumstances are transmutable. These are Tinea favosa, Tinea tricophytina, Tinea versicolor, and Tinea decalvans. The relative frequency of these affections in Scotland and America will be seen by comparison of the number of Dr. Anderson's cases per thousand in private practice with those among similar patients here. Tinea favosa in Glasgow four, in Boston one; Tinea tonsurans in Glasgow thirty-six, in Boston eighty-one; Tinea versicolor in Glasgow fifteen, in Boston thirteen. With regard to the position and nature of the fourth, Tinea decalvans, Dr. Anderson continues to entertain no doubt of its parasitic character, and offers as the reason why the fungus is so generally overlooked, that it is very small compared with other vegetable parasites, and implicates the sheath of the hair rather than the hair itself. Whether the affection be parasitic in a small proportion of cases only, as we believe, or almost uniformly so, as the author thinks, while this uncertainty about its pathology remains unsettled, a comparison as to its relative occurrence in the two countries in this connection would be useless. Lupus is classed among the affections due to some uniform cause. This may be admitted as a plausible theory, but when the particular cause is specified as strumous, then we must ask for reasons before accepting it, unless a wider and even more indefinite significance is allowed that very unsatisfactory term than is now generally attached to it. That the author's definition is of this latitude, the following extract will show: "It is a mistake to suppose that warts are mere local affections; indeed, I have little doubt that they are remotely connected with the scrofulous diathesis—that they are what we may call, in imitation of our friends across the Channel, 'a benign scrofulide,' as they are specially apt to occur in persons of a scrofulous habit, and as strumous affections very often take on the warty character." The great rarity of prurigo in America, which has been noticed here by all who have learned to recognize it in Germany as a disease of frequent occurrence, is paralleled by its infrequency in Great Britain, Dr. Anderson's figures showing but three cases in both series of 11,000. Psoriasis occurs in surprisingly large proportion to eczema, 831 of the former to 2,875 of the latter. This may be explained possibly by the fact that its obstinacy and tendency to recur through life lead every case to seek medical advice at one or another period of its existence. On page 53, we find it stated that the three diseases alone capable of affecting the whole body are pemphigus, pityriasis rubra, and lichen ruber. If the author has never had a case of universal eczema to treat, his experience is more fortunate than that of some other dermatologists.

The second and larger part of the book is devoted to the therapeutics of diseases of the skin. With regard to the danger of "driving in" an eruption, about which much popular error exists, not altogether without the occasional support of physicians, the author says, "I am quite convinced that there is very little reason to dread such an occurrence." . . . "Those who are most intimately acquainted with the treatment of diseases of the skin, will probably agree with me in thinking that the difficulty lies, not in curing them sufficiently slowly, but in curing them with sufficient rapidity." The remedies most serviceable in these affections are considered under the heads of local and internal. Among the former, after some general statements respecting their action, he discusses the use of baths, absorbent powders, poultices, soothing ointments and lotions, empyreumatic oils and their derivatives, creasote and carbolic acid, potash applications, mercurial applications, sulphur, impermeable dressings, caustics, blisters and parasiticides, all capable of accomplishing much good or evil, accordingly as they may be used understandingly or not. The special objects for which they are to be employed, and the method to be followed in their application, are described with judgment and that observance of detail which betoken the experienced dermatologist.

Dr. Anderson is a strong advocate for the utility, if not for the absolute necessity of constitutional treatment in connection with local remedies, and, although less urgent for its universal employment than most English writers, he resorts to it far more commonly than his German teachers. Purgatives or aperients he finds of service in a large proportion of cases at the outset, and with regard to the use of mineral waters, which stand so high in popular estimation the world over, he gives the very sensible advice that it is always better to send the patient to the spring itself, "for he is thus certain to get the waters fresh and pure, and, away from home and the fatigues and anxieties of business, his body is at the same time invigorated and his mind refreshed." Alkaline medicines he finds very useful in skin diseases occurring in rheumatic subjects. In the efficacy of cod-liver oil, he is a firm believer, in many affections which are not strumous. Tar and carbolic acid he administers in some diseases with benefit, he thinks, and recommends the trial of the alkaline sulphites and hyposulphites in those depending on morbific ferments. In relation to arsenic, which he considers the great cutaneous tonic, he offers the following aphorisms:—

"1. Arsenic, judiciously administered, is as safe a medicine as any in the Pharmacopœia, and may often be used for months without injury to the general health.

"2. It often requires to be continued for many weeks, and sometimes the disease seems to resist its action for a considerable time, when all of a sudden improvement occurs, followed by a rapid cure.

"3. It requires to be given in proportionately larger doses to children than to adults.

"4. Infants may be subjected to its influence by administering it to their nurses.

"5. The dose should be at first small, and not increased, as a rule, for some time. Then it may be gradually increased till the medicine disagrees, or till the disease begins to yield, when it may as gradually be diminished.

"6. It should not be omitted altogether without very good reason, but may be tried in smaller doses or in another form, or omitted for a few days, till the bad effects have passed off.

"7. Puffiness of the face, or irritation of the eyes, or such like physiological effects, if slight in degree, should not lead us to discontinue the medicine; indeed, it is sometimes only then that its beneficial action on the disease is observed.

"8. It is decidedly contra-indicated in acute cases; and when its use is followed by marked increase of irritation of the skin (itching, heat, &c.), the disease is probably not in a state to be benefited by it.

"9. It is generally more rapidly effectual if the disease, though in a chronic state, is recent; and the first attacks yield more readily to it than subsequent ones, as a rule.

"10. It is contra-indicated in most cases which are complicated with digestive derangement.

"11. It is apt to produce bronchial catarrh, so that patients should be warned to avoid exposure to cold while taking it; and for this reason it is generally contra-indicated in persons laboring under bronchitis.

"12. In exceptional cases it may be given with benefit in large doses.

"13. It sometimes requires to be given during meals, or immediately after food is taken, for when administered on an empty stomach it occasionally deranges the digestive organs; and it is often better tolerated if given along with a bitter infusion.

"14. It should not, as a rule, be entirely discontinued until some weeks have elapsed since the complete disappearance of the eruption.

"15. There are few chronic diseases of the skin of constitutional origin—provided they are not syphilitic—which may not be benefited by it (although often other treatment is to be preferred to it), but it is especially valuable in psoriasis, pemphigus, lichen ruber, pityriasis rubra, and in many cases of eczema; unless contra-indicated as above."

The book, on the whole, although necessarily from its character ranking below the author's other publications, is full of practical information, and one of the most valuable contributions to dermatology published in a separate form during the year.

VIRCHOW'S Handbuch der Speciellen Pathologie und Therapie. Hautkrankheiten.

SINCE the preparation of the present sketch of the notable contributions to dermatology during the past year, there has been received through the kindness of the author, Dr. Kaposi (Moritz Kohn), most unexpectedly the second Lieferung of the second part of Hebra's great work on Skin Diseases. Its publication at this time brings with it a striking contradiction to our introductory statement that no book of unusual importance had appeared during the year, for it may safely be said that never before has a single volume appeared of equal importance to the literature of dermatology, covering as it does a field of cutaneous pathology from which previous writers have cautiously held aloof. We have long felt the darkness which covered it, the pressing need of the light which could be thrown upon it from one source alone. Now for the first time the gates to that great storehouse of facts and of observations which a master has been collecting through a lifetime are thrown open, even though it be by the hands of another, and all this vast experience is ours. It is well, too, that it was withheld so long, for it is only within the past few years that that special knowledge of the anatomical changes of the skin in disease has been acquired by the young school of dermatology, which has revealed to us so many secrets of the inner nature of these affections. Among the workers in this newer field of research, Dr. Kaposi has been one of the most able and indefatigable. With the fruits of his own microscopical labors, and those of the many other ardent investigators of the modern school at command, it will be recognized how peculiarly fitted he is to make known to the world the unparalleled clinical experience and ripened opinions of his distinguished father-in-law, Professor Hebra. With such a combination of resources alone could one approach the subjects which form the contents of the present volume, for they comprise the VIIIth and IXth classes of Hebra's classification, the new growths of the human skin.

The mere mention of this term calls up the whole vast field of research, which has been so diligently worked since Virchow founded the modern system of pathology, and the many questions of startling interest connected with it which have recently arisen. With all the light which late investigations have thrown upon the anatomical changes in the pathological processes of the cutis and epithelium, it will be seen how different are the views now held concerning these affections from those entertained when Hebra originally divided them into distinct classes in his system—the benignant and the malignant—and how difficult the undertaking to apply to all these heterogeneous groups of affections the lessons of our latest science.

Dr. Kaposi has accomplished this task in a manner which leaves nothing to be desired. The subjects are treated at great length and with careful reference to the literature of the past and the researches of contemporaries. The same attention is given to the minute details of treatment, which has made the preceding writings of Hebra so useful to the practitioner. In the short time at command since the volume was received, even if space permitted, it is possible only to give a list of its contents; a critical notice, to do justice, would require extended study to prepare.

The diseases treated of are arranged in the following order:—

Class VIII.—Benignant new growths.
1. Of fibrous tissue.
   Keloid. Cicatrix. Molluscum fibrosum. Xanthoma.
2. Of vessels.
   Angioma. Vascular new growths.
      Telangiektasy. Nævus vascularis. Angio-elephantiasis. Tumor cavernosum.
   Lymphangioma. Lymphat. new gr'ths.
      Lymphangioma tuberosum multiplex.
3. Of cells.
   Rhinoscleroma. Lupus erythematosus. Lupus vulgaris.

Class IX.—Malignant new growths.
1. Lepra.
   Lepra tuberosa. Lepra maculosa. L. anæsthetica.
2. Carcinoma.
   Epithelioma. Carcinoma lenticulare, tuberosum, melanodes.
3. Sarcoma.
   Sarcoma idiopathicum multiplex.

The volume contains 282 pages. Two more classes yet remain to complete the work—the Neuroses and Parasitic Affections. With Dr. Kaposi's zeal and industry we shall not have long to wait.

The Anatomy and Development of Rodent Ulcer. A Boylston Medical Prize Essay for 1872. By J. Collins Warren, M.D.

Perhaps no affection of the skin has been so long ignored or misjudged as this, certainly none so conspicuous in its manifestations. Until within a very short time, nearly every disease of the skin of the face characterized by a destructive process has passed for lupus with surgeons, and notwithstanding Hutchinson painted its clinical features so vividly that rodent ulcer should never again have been unrecognized, it has continued to be confounded with the former in surgical diagnosis, both in books and practice. Such instruction as Dr. Warren attempts to give in this essay, therefore, has long been needed to fix its relations to ordinary epithelioma on the one hand and to separate it from other forms of cancerous growth. The anatomical and clinical characters of lupus have long been so well defined that their individuality should never have been misinterpreted.

After a brief description of the gross appearances of the affection and an account of the literature pertaining to its pathology, five cases are reported, which furnish the anatomical material for the investigations upon which Dr. Warren's views of the nature of rodent ulcer are based. For the details of these observations, representing an amount of patient and skilled labor, that only an accomplished microscopist, educated in the modern German methods of manipulation, can appreciate, we have no space; it is only his conclusions, the results of these researches, that can be given. These are: 1st. All those cases of rodent ulcer examined are forms of epithelial cancer. 2d. They differ from those forms of epithelial cancer, of which cancer of the lower lip is the type, in the small size of the epithelial cells. 3d. These ulcers may be divided histologically into two different groups, according to the arrangement of the cancer-cells, viz., into tubular and alveolar.

As to its relations to other forms of cancer of the skin, and the classification of cancers in general upon an anatomical basis, the following opinions are expressed after a discussion of these questions. Two forms of cancer are recognized; 1st. The large-cell variety, or the infiltrating form, for which we may select cancer of the lower lip as a type; marked by a greater degree of malignancy, both in the more rapid growth and in the liability to an infection of the neighboring lymphatic glands, or of more distant parts. 2d. The small-cell variety, the most typical form of which is the rodent ulcer, characterized by a slow growth, and very rarely followed by an infection of distant parts.

Then follows an elaborate sketch of the views of the many microscopical investigators of the present day with regard to the development of cancer and its relations to the various elements of the tissues in which it is found. This portion of the essay deals with some of the most difficult and important questions in modern pathological anatomy. As the result of his observations in these cases bearing upon the points above referred to, he finds that in certain cases—1st. The formation of cancer-cells is preceded by an escape of the white blood corpuscles through the walls of the vessels, and an accumulation of similar cells in the adjoining lymphatic canals. 2d. That this is followed by an apparent transformation of these cells into cells resembling strongly the epithelium of the rete malpighii. 3d. That the epithelium of the parts affected does not appear to take an active part in the process, but may exert a certain influence on the character of the formation taking place. 4th. That the cancer-cells lie in the lymphatic spaces of the connective tissue, and do not invade, to any appreciable extent, the lymphatic vessels. In the low formative power of the elements, the absence of power to multiply themselves to any extent, their extremely short-lived character, and their inability to invade to any extent the lymphatic vessels, he finds that combination of peculiarities which make rodent ulcer the type of the mildest form of cancer.

The characteristic changes in the structure of the skin upon which these views of the anatomy of the disease are based, are clearly shown in the fine drawings which accompany the essay. The plates were beautifully drawn upon stone by Dr. Quincy. It is with just pride that we can say of this valuable contribution to surgical pathology that no better work of the kind has ever been done abroad or at home.

Etude sur la Pathologie des Glandes Sebaceés. Par Camille Misset, Docteur en Médecine de la Faculté de Paris. Pp. 125. Paris. 1872.

This monograph begins with an introductory chapter on the anatomy and physiology of the sebaceous glands, and on the etiology and pathological physiology of the affections of which it treats. These affections are mainly those ordinarily included in this class, but arranged, subdivided and re-arranged in groups according as they are supposed to be the result of, 1st, inflammation; 2d, lesions of secretion; 3d, lesions of nutrition. We find thus from twelve to sixteen varieties of acne described in scattered positions throughout the book, destroying thus the only merit which some monographs may claim, that of presenting in a concise and convenient form for reference subjects elsewhere widely distributed, or making part of large and general treatises. This one scatters what may be found in much better form and of far better quality in other works. The author has fallen far short of giving us a complete account of the recent acquisitions to our knowledge of the anatomy and pathology of these important affections, and fails to make good such omissions by offering us anything new of value. Three of the plates are very good pictures of cases of hypertrophy of the nose, the Pfundnase of the Germans.

Du Traitement des Tumeurs Sous-cutaneés par l'Application de la Pate sulfo-safrancé, et de l'Action de l'Acide Sulphurique sur la Peau. Par le Dr. Neyreneuf. Pp. 84. Paris. 1872.

The first part of this work gives us an account of some experiments with regard to the action of monohydrated sulphuric acid upon the dead and upon the living skin. In the second part the author considers the application of one of these pastes in the treatment of subcutaneous tumors, the paste used, called by Velpeau caustique sulfo-safrancé, being prepared as follows: Two parts of the acid and three parts of saffron are triturated in a glass mortar until a homogeneous paste of a beautiful black color and good consistence is obtained.

Upon the dead skin the application of the concentrated acid gave the following results: At the ordinary temperature a greater transparency, a yellow color, shrivelling, and a very appreciable retraction. If the action of the acid is prolonged and that of heat added, we have the separation of the epidermis, a deep brown coloration, and the transformation of the elements of the skin into gelatine. It is also demonstrated that sulphuric acid penetrates the skin by endosmose, and is absorbed by it; that the action of the acid in a liquid form and of the sulphuric paste are alike; and that the desiccation of the paste may be obtained by placing it in favorable conditions of temperature and for absorption.

Applied to the living skin sulphuric acid spreads, penetrates the tissues and renders them transparent, leaving a red surface marked with black streaks or islets, due to the coagulation of the blood in the vessels. An eschar is formed which quickly becomes dry, hard and insensible. The desiccation increases more and more, and under its influence the transparency nearly entirely disappears. At the end of several days the skin has taken a deep yellow tint, resembling that of glue *à bouche*. These changes are accompanied by a very acute pain, lasting not more than three or four hours. Not a trace of inflammation can be observed, and the separation of the part is accomplished from the sixth to the fortieth day, the cicatrization taking place without suppuration.

The sulpho-safrancé paste, when applied in suitable proportion, produces an eschar of its same size, not exceeding in depth the limits of the skin. This action is produced by the coagulation of the blood, which, by arresting the circulation, becomes the cause of the gangrene. Partial gelatinization of the mortifying tissues and their desiccation follow as secondary phenomena. The separation of the eschar takes place from the sixth to the fortieth day, showing a cicatrix of good quality, without induration and without contraction of the skin. Neither during the mortification of the tissues, nor at the moment of formation of the eschar, nor during the period of separation are any traces of inflammation observed.

According to the author, Dr. Chairole was the first to apply this peculiar action of the acid-saffron paste to the treatment of benignant subcutaneous tumors. The growths in which its use has been followed by the best results are sebaceous cysts, lipomata, and enchondromata. It is as an acquisition to our knowledge of the action of sulphuric acid upon the skin that we notice the book here, believing that it will prove to be a more serviceable contribution to medical jurisprudence than to therapeutics.

On the Absorption of Insoluble Substances in Mammals. By Heinrich Auspitz.

This little reprint from the *Wein. Medizin. Jahrbucher* of 40 pages, received from the accomplished author, has already been placed before American readers in abstract, and has been noticed everywhere with well-deserved praise. It needs, therefore, but brief notice in this record, although one of the most important contributions to the physiology of the skin. It contains the descriptions of 45 experiments undertaken by Dr. Auspitz to settle some of the disputed points in connection with this question, that of the power of the skin and mucous surfaces of the body to absorb insoluble matter in a finely divided state. The work was ingeniously and faithfully done, and is recorded in detail, with a history of the observations and conclusions of earlier experimenters in the same field. Several series of experiments were undertaken. 1st. Injections of starch-meal into the venous system; 2d. Injections of starch suspended in water into the abdominal cavity; 3d. Injections of the same into the subcutaneous cellular tissue; 4th. Injections of starch suspended in oil into the abdominal cavity; 5th. Injections of the same into the subcutaneous cellular tissue; 6th. Examination of the ductus thoracicus for starch after its injection into the abdominal cavity and subcutaneous cellular tissue; 7th. Inunction of starch into the skin of animals and men.

As the grand result of all these experiments, he offers the following conclusions: That in mammals insoluble material bodies, as starch granules, may gain entrance, 1. From the abdominal cavity; 2. From the subcutaneous cellular tissue into the circulation first of the lungs, and from there into that of the body generally; 3. That they pass through the lymph vascular system in order to enter the veins (although whether they are absorbed exclusively in this way is not yet definitely determined); 4. That the epidermis is always a considerable obstacle, relative but not absolute, to absorption from the surface of the skin; 5. That absorption is essentially aided through the medium of fat, which gains entrance to the circulation in the same way as, though still more easily than, starch. Dr. Auspitz adds, in conclusion, that these same laws may apply as well to other insoluble substances capable of fine division as to starch and oil, a probability not contradicted by his experiments with mercurial inunction.

On the Physiological and Pathological Anatomy of the Lymph vessels of the Human Skin. Biesiadecki. (*Archiv fur Derm. und Syph.*, Drittes Heft, 1872.) As the result of his observations at Krakau, B. offers the following conclusions:—1. That a more intimate connection exists between some of the blood and lymph vessels of the corium, and that in the subcutaneous cellular tissue the latter possess special blood-vessels mainly distributed to themselves; 2. That certain pathological changes of the skin also confirm this observation, inasmuch as (*a*) in syphilitic induration of the prepuce the lymph vessels are noticeably enlarged; (*b*) the lymph vessel which runs from the indurated prepuce to the subcutaneous fibrous tissue of the dorsum penis is filled with a fibrinous coagulum partly disintegrated, partly organized, and the wall of the lymph vessel shows numerous exudation cells, which are wanting in the surrounding fibrous tissue; and (*c*) inasmuch as hereditary cutaneous tumors occur in which the lymph vessels are distended with cells, while the neighboring tissues show only slight changes. 3. The hardness of a syphilitic induration arises in part from a fibrous tissue new formation.

Transplanted Cuticle and Skin. (*Archiv fur Dermat. und Syph.*, Drittes Heft, 1872.) Reverdin (*Comp. Rendu.*, lxxiii.) describes the histological process as observed in his numerous experiments as follows:—The transplanted pieces never consist wholly of epidermis, but always of thicker or thinner portions of the cutis as well. They may be taken from various individuals of the same species or from individuals of different species. They grow upon white men when taken from negroes and rabbits; and upon rabbits pieces taken from rabbits, from cats, and from men continued to grow.

When the transplanting succeeds, the graft is firmly fixed after twenty-four hours, and appears swollen and wrinkled. On the third day there is formed around it a smooth red ring, and it lies depressed below the level of the granulations. From and after the following day the red ring grows gray and by degrees white, and cicatrization progresses in the same way.

The islets formed in this way are of quite regular round form, if the graft is removed some little distance from the edge of the wound on all sides. When it lies near the edge, or when two pieces of skin are placed near each other, then the development of the epidermis is more pronounced in places where the two cicatrizing edges lie nearest each other. The islets then assume an elongated shape, send out projections in this direction, and in this way very elongated, narrow cicatrizing points may be formed.

If the grafts are taken from a pigmented skin (that of a negro or black cat), they gradually lose their color and finally become perfectly white, while the islands forming around them show no special pigmentation.

The microscopic examinations were made with the assistance of Ranvier upon frogs, the preparations being hardened in chromic acid and colored by carmine. If the graft is forty-eight hours old, its epidermal walls will be found desquamating. Their nuclei show the vesicular modification described by Ranvier. On the borders of the transplanted skin the epidermis extends itself only a little way above the granulations; elsewhere, however, it penetrates between the derma and the granulations, and sends out constantly at this level a more or less deeply penetrating continuation. It is in this way that the graft always seems to attach itself in the beginning. The projections emanating from the epidermis are always in intimate connection with the embryonic tissue of the wound.

Gradually the epidermis extends farther and farther towards the surface of the wound, and a six days' old transplantation offers the following conditions:—The epidermal cells of the graft are found in the same state of desquamation and of vesicular alteration of their nuclei as in the stage above sketched. The epidermal outgrowth surrounding the graft and penetrating the depths of the wound has become strongly developed. From the upper edge of the piece there stretches an epidermal layer of varying thickness, from the deep surface of which new and often quite voluminous and irregular buds project, which penetrate the embryonic tissue. At the bottom there are often found epidermal balls, resembling the peculiar balls of cancroid. The fibrous foundation of the graft is also found changed after six days, being pierced by embryonic vessels, which communicate with those of the granulations, and the fibrous tissue presents generally the embryonic character of the granulation tissue. From these observations Reverdin concludes:—1. The attachment of the graft is accomplished first, by means of the epidermis, and, second, through the fibrous tissue beneath. 2. The epidermis exercises a sort of contact effect, by which the bordering embryonic surface is forced to convert itself into epidermis.

Ollier (same journal, from *Tribune Med.*, Mai, 1872) makes use of pieces cut from the entire thickness of the cutis for transplanting, and obtains, according to his statements, in place of a cicatrix the normal tissue of the cutis, and prevents cicatricial contraction. He has also lately succeeded in transplanting a portion of periosteum upon a granulating surface. In earlier attempts on animals he had obtained a new growth of bone by transplanting periosteum removed from animals twenty-four hours after death, and assumes from this a similar duration of vitality for the cutis.

(To be continued.)

APOTHECARIES.—The first apothecaries lived at Naples. By the edict of Frederick II., it was required "that the confectionerii should take an oath to keep by them fresh and sufficient drugs, and to make up medicines exactly according to the prescriptions of the physicians." The first mention made of an English apothecary occurs in the reign of Edward III., who, it is said, bestowed, in the year 1345, a pension of sixpence per day on Coursus de Gangeland, an apothecary of London, for taking care of and attending his Majesty during his illness in Scotland. They were established in France and Germany about the time they were introduced in England. There was no apothecary's shop in Halle till the year 1493.

Reports of Medical Societies.

SUFFOLK DISTRICT MEDICAL SOCIETY. REPORTED FOR THE JOURNAL.

THE Society met November 30th, the President, Dr. Lyman, in the Chair.

Removal of a Uterine Polypus.—Dr. Bixby showed a polypus which he had removed from the uterus by the ecraseur. Three years ago, the patient had had a similar tumor removed of the size of a fœtal head.

For a year or two, she had continued well, and then began to exhibit symptoms of renewed trouble; for the last year she had had constant menorrhagia. The polypus in this case had been found protruding from the os and attached by a small pedicle.

Operation for Relief of Glaucoma.—Dr. H. W. Williams mentioned a case where he had operated in a case of glaucoma under circumstances which were apparently very unfavorable. An old lady, leading generally a very quiet life, had had loss of vision a year ago; she had, however, been restored to sight, and no symptom remained except a certain amount of dimness of vision on Sundays, at which time her nervous system was stimulated to an unusual degree. Two weeks before she was seen by Dr. Williams, she had been attacked with pain about the left eye, which was supposed to be due to facial neuralgia. As the blindness became greater, however, and the other eye was getting dim, she had applied for relief. At that time, Dr. Williams found marked symptoms of glaucoma in an advanced stage in the right eye and, to a less degree, in the left. The pain was very severe, the sight was almost entirely wanting, and the ophthalmoscope failed to reveal the base of the eye on the right and imperfectly on the left. He performed iridectomy in both eyes, with immediate relief to the pain and with a considerable increase of visual power. The case showed that it was not advisable to abandon cases even in the most advanced stage.

In another case, the symptoms had continued so long that but little improvement in vision had been obtained from the operation, but the pain had been relieved at once, so that on the access of the disease in the other eye, the patient had, of her own accord, immediately applied for treatment.

Constipation Relieved by Electricity.—Dr. Webber reported the case of a woman, 60 years of age, who, for thirty years, had constipation of the most aggravated character. She had taken enormous amounts of medicine, but had never obtained relief to the bowels without enemata and the persistent use of cathartics. On the first of October, Dr. Webber had commenced the use of the Faradaic current, applying one pole in the lumbar region and the other on the abdominal walls; it was repeated on the next day, and on the following day the patient had one or two discharges. The treatment was continued for two or three weeks, until she had had fourteen applications, since which time the discharges had been natural. She is now considered cured. It was noticed at first that the patient was tolerant of an exceedingly strong current, but that as the bowels began to regain their contractility, the anæsthesia disappeared. Dr. Webber had seen six cases of a similar character lasting a longer or shorter time and yielding to electricity. In one case diarrhœa had been excited, which ceased on stopping the electricity. All these cases showed a greater or less tolerance to a powerful current as the constipation increased or diminished.

Dr. Fisher considered electricity to be a nerve tonic, and had been struck with its effect, as well as that of opium, in relieving constipation in cases complicated with nervous debility or melancholia.

Dr. Williams suggested that the coarse food used for such a length of time by the patient with a view to relieving the constipation, might have acted in the opposite way by causing undue distention and consequent paralysis of the intestine.

Ovariotomy.—Dr. Bixby stated that the case of ovariotomy reported by him at the last meeting had entirely recovered. Notwithstanding the adhesions which were found to exist almost universally, the patient had made a better recovery than another in whom no adhesions existed.

Case of Emphysema.—Dr. Cowles exhibited a patient, about 40 years old, who had no tendency to pulmonary disease, either hereditary or acquired. In January last he had acute pleurisy. He was first seen by Dr. Cowles in March. He then presented the usual signs of a large accumulation of fluid in the right pleural cavity, together with a cough and dyspnœa, profuse sweating and hectic. March 16th, an exploratory puncture was made between the ninth and tenth ribs, and forty-eight ounces of pus were drawn off by Dr. Bowditch's method, with great relief to the patient. On the 19th of April he had a severe chill, and on the 22d the symptoms of emphysema having returned, and being quite as urgent as before, paracentesis was performed, and twenty-four ounces of pus removed. He had for a time previously expectorated pus quite freely. May 17th, paracentesis was again performed, thirty-two ounces of pus removed, and the cavity, then holding about a pint, washed out with water and carbolic acid. The canula was left in place, but it became necessary to remove it. May 29th, sixteen ounces were drawn off, and again, on June 10th, eighteen ounces. A gum-elastic catheter was inserted and fixed permanently in the wound. From that time to the present the patient has been cared for by his wife, who has washed out the cavity daily. It now holds only about an ounce. The man has increased seventeen pounds in weight. The lung has not thus far expanded to any marked degree.

Dr. Buckingham mentioned a similar case which had come under his own notice.

Thrombus of Vulva.—Dr. S. Cushing reported a case of extravasation of blood which had taken place in a young woman, about 20 years of age, three fourths of an hour after labor had terminated, causing a considerable protrusion of the perinæum and labium. It caused no inconvenience, except by its size. Five weeks later, Dr. Sinclair saw the case in consultation, and removed the coagulum by an incision through the perinæum.

Dr. J. B. S. Jackson recalled one or two cases, previously reported to the Society, where patients had experienced severe hæmorrhage from the organs of generation from accidents during pregnancy or labor, one of which had proved fatal.

Dr. Bixby had seen similar cases, in which he had opened the sac, removed the coagulum, and destroyed the sac by acid nitrate of mercury.

Smallpox and Re-vaccination.—Dr. A. B. Hall introduced the subject and asked questions which elicited the following remarks from Dr. Webb, recently in charge of the Smallpox Department of the City Hospital. He stated that of the applicants for admission at the hospital, a large portion had been vaccinated. The question was asked them on entrance, and they were always examined with reference to the scar of the operation. Dr. Webb had been led to give little heed to the scar of primary vaccination in making his diagnosis and prognosis; for many patients came with smallpox, having one, two or three apparently satisfactory scars. He had made a large number of vaccinations within the past five years. With some people no amount of vaccination seemed to produce the vaccine disease or to ward off variola. He had often felt at a loss when to assure patients that they are protected. In one case, recently, he had vaccinated a lady, without effect, fifteen times, and on the sixteenth attempt had obtained three good vesicles, followed by good scars.

Dr. Webb had seen 23 cases where smallpox had occurred twice in the same patient and one three times. In one case a child, 4 or 5 years old, had had the disease in March, last, and three weeks ago he had seen the patient with the same disease, of which it died. A woman, who had been vaccinated eight years ago, had had varioloid four months ago, and afterward had hæmorrhagic smallpox, and died. It would seem, therefore, that some persons are so susceptible that neither vaccination or a previous attack of variola will protect them. Cases of hæmorrhagic smallpox in the female are almost always accompanied by bleeding from the uterus, whether it is time for the catamenia or not. Cases of this class very frequently show no external eruption whatever; but generally a few vesicles are found. These cases are almost always fatal. He had known of but one case only which had recovered. He mentioned the case of a man who was walking about his room with no other appearance on the skin than an erythema, who was dead eight hours later. Death took place from collapse or asthenia. Hæmorrhages took place from all the openings of the body; but he did not consider that the amount of blood lost entered into account in causing death. The patients apparently died, overpowered by the poison. He had known of patients dying almost instantly, while taking food or sitting up. In hæmorrhagic cases where no eruption is seen on the skin, the fauces generally show the characteristic vesicle. The temperature always ran high, up to 110° in fatal cases. He had seen no cases of death where the secondary fever was absent. Hæmorrhagic cases were less liable to spread the disease than the milder forms. With reference to humanized and bovine virus, Dr. Webb had noticed no difference in the time of formation of the vesicle, or in the general appearance; he had, however, noticed the large size of the bovine crust, and that this was retained on the arm several days longer than the crust from humanized virus. He now uses the animal virus; he is unable to decide which is the better fitted to ward off smallpox. He had found the bovine matter more difficult to introduce in primary vaccinations.

Dr. Webb called attention to the great injury done by physicians in loosely using the term "varioloid," giving patients the idea that the mild form of variola, commonly called varioloid, was of comparatively little importance and only moderately contagious. All cases which showed *any* manifestation of the disease should be classed as variola or smallpox.

Dr. Fitz reported an autopsy which he had made of a case of hæmorrhagic variola of thirty-six hours' duration, in a man who showed no variolous marks externally, and no papules or shotty feel; but merely an erythema universally. He found extravasations of blood in the lungs, œsophagus, liver, kidneys, bladder and elsewhere. These appearances corresponded with those observed in autopsies in Berlin; it has been noticed that no hæmorrhage has taken place into the small intestine.

Inverted Uterus.—Dr. Wheeler reported an interesting case of inverted uterus, which he had seen following immediately after an instrumental delivery, without any sufficient cause for such an accident. He had at once restored the organ to its place by taxis, unfolding the invagination from the cervix and ending with the fundus. Dr. W. deprecates the method which has been suggested of returning the fundus first.

Dr. Thompson related a case which had occurred in a patient of his some hours after delivery, in which he had reduced from the fundus. The patient died three or four days after.

Chloral for Toothache.—Dr. Page, in the *British Medical Journal*, recommends chloral hydrate as a local application in cases of toothache. A few grains of the solid hydrate introduced into the cavity of the tooth upon the point of a quill speedily dissolves there; and in the course of a few minutes, during which a not unpleasant warm sensation is experienced, the pain is either deadened, or more often effectually allayed. A second or third application may be resorted to, if necessary.—*The Druggist's Circular and Chemical Gazette.*

Various anodynes will answer the same purpose. Among others, iodoform in one grain doses is a very efficient remedy for dental and facial neuralgia. — *Medical Cosmos.*

Bibliographical Notices.

The Physiology of Man; Designed to represent the Existing State of Physiological Science as applied to the Functions of the Human Body. By AUSTIN FLINT, JR., M.D. Nervous System. One vol. 8vo. cloth. Pp. 470. New York: D. Appleton & Co. 1872.

THIS volume is the fourth in the series of physiological text-books published by the same author, and is devoted to the physiology of the nervous system. The author is evidently much more familiar with the works of French and English, than with those of German physiologists. This is the more to be regretted as the most important advances in physiological science during the last twenty years have been made in Germany. In this respect, however, the present volume is an improvement on its predecessors, some of the earlier volumes having been remarkable for an almost entire absence of references to German authorities, except in translations.

The first chapter of the work before us gives a very good general description of the anatomy of the nervous system, including the central and peripheric terminations of the nerve fibres. Rather too much importance seems to be attached to the observations of Pflüger, on the terminations of nerves in glands, unsupported as they are by those of any other histologist. The last part of the chapter is devoted to the "Regeneration of Nervous Tissue." Here some account of the important experiments of Vulpian* on the regeneration of nerves after permanent separation from their centres might well have found a place.

In the second chapter, on "Motor and Sensory Nerves," the credit of discovering a functional difference between the anterior and posterior roots is bestowed, where it no doubt belongs, on Magendie instead of Charles Bell.

The third chapter, on the "General Properties of Nerves," is the most unsatisfactory in the volume. The action of electricity on nerves and the electrical phenomena observed in them are described in an extremely imperfect and confused manner. The importance of the negative variation of the electro-motor current as a measure of the functional activity of the nerve is not even alluded to, the interesting observations of Bernstein* in this department of physiology being entirely ignored.

In the next five chapters the physiology of the cranial nerves is very thoroughly discussed and the results of recent investigations very fairly presented. The following interesting observation of Dr. Mason, of Buffalo, on the inflammatory effects of the division of the fifth pair of cranial nerves is published apparently for the first time. "The fifth pair of nerves was divided in a cat in the ordinary way. By feeding the animal carefully with milk and finely-chopped meat the nutrition was maintained at a high standard, and no inflammation of the eye occurred for about four weeks. The supply of food was then diminished to about the quantity the animal would be able to take without any special care, when the eye became inflamed and perforation of the cornea and destruction of the organ followed."

The explanation offered by the author is that section of the fifth pair causes hyperæmia of the eye because the sympathetic fibres passing through the ganglion of Gasser are divided. A greater supply of nutritive material is, therefore, required from the blood in order to maintain the condition of exaggerated nutrition. The blood, however, is impoverished as the result of deficiency in the introduction of nutritive matter from paralysis of the muscles of mastication on one side. Hence inflammation and sloughing follow, unless the animal is artificially nourished. This theory does not explain the absence of similar effects after section of the sympathetic in the neck, nor take into account the experiments of Snellen,† showing that inflammation and destruction of the eye does not occur when it is protected by sewing the ear in front of it.

The functions of the pneumogastric nerve are discussed in considerable detail. In the account of its action upon the heart, no mention is made of the fact established by the observations of Coats‡ that the force, as well as the rapidity, of the heart-beats is diminished by irritation of the pneumogastric.

The conclusion of the author that the sense of the want of air is not transmitted to the nervous centres through the medium of the pneumogastric nerves seems scarcely justified by the experiments referred to.

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* Leçons sur la Physiologie du Système Nerveaux, p. 270.

* Uber den zeitlichen Verlauf der negativen Schwankung des Nervenstroms. Archiv für die gesammte Physiologie, I., 173. Untersuchungen über den Erregungsvorgang im Nerven und Muskelsysteme. Heidelberg, 1871.

† Quoted by Longet, Traité de Physiologie, iii., 492.

‡ Berichte der mathem.-phys. Classe der k. s. Gesellschaft der Wissenschaften zu Leipzig, Bd. xxi., s. 360.

In view of the greatly diminished rate of breathing which always follows section of these nerves, it seems more reasonable to infer that they are an important though not the only channel through which this sense is conveyed to the respiratory centres.

The following three chapters are devoted to the spinal cord, considered both as a conductor and as a nervous centre. The views of Brown-Séquard, on the decussation of sensory conductors in the cord, are adopted, but the experiments of Melscher* on the same subject are ignored. The author denies to the white substance of the cord all share in the conduction of sensitive impressions, a view which hardly seems in accordance with the teachings of pathology. Great stress is laid both in this connection and in treating of the functions of the encephalic centres, on the importance of reconciling pathological observations with physiological experiments. The power which the system possesses of adapting itself to changed conditions, provided the change takes place slowly, probably explains many of these discrepancies.

Section of a certain portion of the central nervous system may cause serious functional disturbances, while pathological degeneration of the same portion may produce no such results. We have here probably an analogous phenomenon to that which takes place in the circulatory system. The ligature of a large artery may cause mortification of the part supplied by it, while its gradual obstruction by a morbid growth may be harmless in its effects, owing to the collateral circulation replacing the direct.

In the chapter on the cerebrum, is a table giving the weight of the brain in quite a number of individuals of great intelligence, as well as in a number of idiots. In this list the names of Ruloff, the murderer, and the notorious James Fisk, Jr., follow directly after those of Cuvier and Abercrombie, and precede those of Spurzheim, Webster and Dupuytren. The pathology of aphasia is discussed, and the localization of the faculty of speech in the third frontal convolution of the left side is considered demonstrated. While giving due weight to all the positive evidence on this question, it is important to bear in mind that there are cases on record where an affection of this portion of the brain has not been followed by aphasia. The celebrated "crowbar case," is probably one of this sort, though of course the exact extent of the injury to the brain can never be positively determined.

The functions of the cerebellum are discussed in the thirteenth chapter, and the conclusion adopted that this organ "presides over equilibration and the coördination of certain muscular movements, and is in some way connected with the generative function."

The tubercula quadrigemina are described as the centres of vision, though this can hardly be their only function, since these organs are as well developed in blind fishes as in fishes of allied species with eyes.* In the discussion of the so-called "nœud vital" of Flourens, death is very well described as the *successive* loss of physiological properties in the various tissues and organs.

The chapter on the sympathetic system is decidedly unsatisfactory, the recent observations of German physiologists being almost wholly ignored. No mention whatever is made of those nerves whose action is to dilate the vessels to which they are distributed.†

The last chapter of the work contains a good resumé of our knowledge of the phenomena of sleep. On the whole, this volume, though superior to the former ones in some respects, is still marked by many serious omissions, and, though containing much valuable information for the student of physiology, can scarcely be said "to represent the existing state of physiological science." H. P. B.

On some Practical Points in the Treatment of Phymosis produced by Chancroidal Ulcers. By R. W. TAYLOR, M.D., Surgeon to the New York Dispensary, Department of Venereal and Skin Diseases. New York: T. W. Christern. 1872.

THIS is a re-print from the *American Journal of Syphilography and Dermatology*, Oct., 1872, and we feel warranted in recommending it to the careful perusal of all interested in this subject. It is more than a mere didactic essay, it has something new to bring forward.

The author alludes, first, to the cause of the phymosis, "chancroidal ulcers," and remarks, most justly:—"Too much stress cannot be laid upon the injury done by injudicious cauterizations with the solid stick of nitrate of silver."

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* Zur Frage der sensiblen Leitung im Rückenmarke. Berichte der mathem.-phys. Classe der K. S. Gesellschaft der Wissenshaften zu Leipzig. Bd. xxii., S. 404.

* Prof. J. Wyman—Proceedings Boston Soc. Nat. Hist. Vol. 4, p. 395.

* Lovén Uber die Erweiterung von Arterien in Folge einer Nervenerregung. Berichte der Mathem.-phys. Classe der K. S. Gesellschaft der Wissenschaften zu Leipzig. Bd. xviii., S. 85.

He divides phymosis into two stages—the early stage, that of hyperæmia with œdema; and the later stage, where the hyperæmia is accompanied by cell-infiltration of the connective tissue layer of the prepuce. He calls attention to the well-marked distinctions between the two, and to the necessity of employing differing methods of treatment.

His treatment of the former stage is a good example of the advantageous extension of the realm of conservative surgery, where its value is based on the proofs obtained by the large experience of modern specialism. Here, also, instead of *aliquid habeats*, expectants, alteratives, and the whole list of soluble trusts-in-God, a simple and sensible mechanical treatment, producing definite and certain results, is adopted, and carried out by means of a syringe devised by the author of this paper.

In the second stage palliatives are dangerous, not merely useless. Here an operation is needed, and the only question is, how shall it be done? The author answers the question, describes the instrument he has devised for the purpose, and gives his experience as to the subsequent treatment required.

Critically considered, this is a characteristically careful clinical contribution, and as such we cordially commend it. E. W.

The Physician's Visiting List for 1873. Twenty-second year of its publication. Philadelphia: Lindsay & Blakiston.

The Physician's Hand-Book for 1873. By William Elmer, M.D., and Albert D. Elmer, M.D. New York: Wm. A. Townsend.

The two little volumes, so well known to practitioners of medicine, have again appeared on our table to remind us that we are near the beginning of a new year. We hold both these works in the highest esteem; both are eminently practical and are admirably arranged; both contain handy tables, and information of value; and either of them furnishes to the physician a vade mecum which he cannot well dispense with, as a reminder of daily duty, and a record of work accomplished.

They are for sale at this office and at the Old Corner Bookstore, 135 Washington Street.

A Year-Book of Therapeutics, Pharmacy and allied Sciences. Edited by Horatio C. Wood, Jr., M.D., Prof. Med. Botany, University of Pennsylvania, &c. New York: William Wood & Co. 1872. Pp. 360.

This work is a compilation of the material published in the periodical called "New Remedies." It supplies a great amount of information on the most recent advances in therapeutics, materia medica and toxicology, together with sixty pages of selected formulæ and general receipts. The amount of labor involved in such a work, in the preparation of abstracts and in the judicious selection of matter, is obviously very extensive, and examination shows that the work has been done thoroughly and efficiently.

As a hand-book for references, this work will be found of much use to physicians, and a copious index has essentially added to its value in this respect.

Two Cases of Cysticercus Cellulosæ in the Humam Eye (Dr. J. Hirschberg, of Berlin, *Virchow's Archives*, vol. liv., Parts 1 and 2).—In one case the worm was in the deep portion of the vitreous humor, in the other it was in the anterior chamber of the eye. After the worm had been detected by means of the ophthalmoscope, an incision was made in the sclerotic, as for the extraction of a cataract; then iridectomy was performed, and the crystalline lens was slowly and completely extracted while the patient was still in the horizontal position.

The upright position was then assumed, and a small hook was inserted into the vitreous body, and the entozoon dragged forward until it was visible to the unaided eye. By causing the patient to bend forward, the edges of the sclerotic wound were made to gape, and the worm slipped out upon the table. The wound healed by first intention, and the form of the eyeball has been completely retained.

The second case is important, since it demonstrates that the position of the parasite may be mistaken for one of the lamellæ of the cornea, when in reality it is in the anterior chamber of the eye. Both parasite and patient were very young; the former about 12 weeks, and the latter 2 years. An incision was made in the inferior portion of the cornea, and the cysticercus extracted head-foremost. Under gentle pressure and instillation of atropine the wound healed in two days, and the sight remains normal.

Medical and Surgical Journal.

Boston: Thursday, December 5, 1872.

"ETHER vs. CHLOROFORM."

At the risk of seeming to recur too often to this question, though in reality it cannot be presented too often while it is a question of life or death to so many, we must express our gratification at the prospect of a thorough trial by English surgeons of the American method of administering ether. For this prospect we are chiefly indebted, whatever others may have done, to the unwearied labors of the *British Medical Journal*, in its "perseveringly seeking the records of all contemporaneous cases of fatality" by chloroform, and fearlessly publishing them. For years, we have pleaded, not for ether but against the unnecessary sacrifice of human life by the use of chloroform. Often disregarded, or derided as partisans, we have persisted, in the full belief that right reason would eventually assert its supremacy.

A long editorial in the *British Medical Journal* for November 2d, places the whole matter clearly and fairly before the profession, and calls upon surgeons and professed administrators of anæsthetics in England to give ether a "full, thoughtful and careful trial." These medical men cannot any longer resist the appeal now so forcibly made to them by the *Journal* of their own Medical Association. They must make the trial; and there is no fear as to the result, if they will only follow out the directions so often given in the Boston Journal, and demonstrated to them so recently by Dr. Jeffries, whose remarks on this point the British editor has re-printed. One caution, however, we feel constrained to give in passing, and that is, not to exclude atmospheric air *entirely*. From this cause, in some of the first administrations of ether by inhalers impervious to air, patients came near losing their lives by asphyxia, and the adoption of anæsthetics was greatly hazarded.

Such accidents cannot well happen if the "towel rolled into a cone," with a sponge or rags crowded inside, be the only apparatus used.

To accoucheurs, also, we would suggest more careful observation of the effects of chloroform, as there is some reason to fear that their confidence in this agent has been misplaced.

The *British Medical Journal* gives full credit to the *Boston Medical and Surgical Journal* and to the *Lyon Médical;* to Dr. Jeffries, of Boston, and to Dr. Diday, of Lyons, for earnest and effective efforts in this matter. If, now that the case is so fully forced upon them, British surgeons do not apply themselves with diligence to its solution they may, though scoffing, find that there is more in the "final sentence of Dr. Diday's warm pleading," and in "extraneous considerations" which we have sometimes suggested to them, than is pleasant to contemplate.

We cannot better emphasize these observations than by presenting the recently published testimony of an English physician. His opinions are so clearly expressed and they bear upon them so plainly the stamp of sincerity that they are worth listening to.

In the *British Medical Journal* for Nov. 9th, Dr. Underhill, of Tipton, says:—

"Having recently returned from a visit to the United States, where I had good opportunities for inspecting most of the large hospitals and of seeing ether administered a great number of times, I am persuaded that the *advantages claimed* for it by our American brethren *are fully proved by facts*. During the whole of the time I was in the country—a period of nearly a year—I never saw or heard of a death which could be justly attributed to its use. . . . In a *very few instances* is the use of ether *followed by the sickness* we so constantly see after chloroform, provided a sufficient quantity have been given at first. I have carefully observed the pulse and respiratory functions in numerous instances, and have found them little, if at all, affected. Patients are undoubtedly rather longer, as a rule, in getting under its influence, and longer in recovering from its effects, and give one the impression of being excessively drunk. That the *muscles are perfectly relaxed,* I have had demonstrated over and over again. One thing alone would be sufficient, even were others wanting, to justify its more frequent use; and that is, that its administration *need not be entrusted to skilled hands,* but that almost any one can, in an emergency, give it without danger. I have *failed to perceive the unpleasant smell* noticed after its administration in some of the London hospitals, and believe this to have arisen from some impurity in the drug. The numerous failures which have followed its use in this country may probably be put down to the same cause. I believe the time to be close at hand when *chloroform,* except on special occasions, will be considered *a thing of the past,* and that the advantage of ether will be every day more conclusively demonstrated."

This manly and truthful statement of Dr. Underhill is conclusive, and must go far to remove the persistent prejudices of his countrymen. We have italicized a few points he makes which utterly disprove the objections they usually urge against the use of ether. In fact, in all essential particulars, ether is as good as chloroform. It needs in its administration only neatness, firmness and common-sense adaptations to individual cases. It is safe, while chloroform is deadly.

The editor of the *British Medical Journal* thus closes an article in the issue for November 16th:—

"In face of the great mortality from chloroform, and of the almost deathless record of ether, it has become our duty to interpose, to call the urgent attention of professional men throughout the country to the claims which ether has upon their confidence, and to urge that the anæsthetic which was thrust out of repute by the ready and convenient fluid introduced by Simpson, shall have an extended and fair trial. We are glad to find ourselves supported in this view by many experienced manipulators."

If the British Medical Profession do not give ether a fair trial, after all that has now been told them, they will deserve the reprobation of the civilized world.

From Continental Journals.

Periarthritis of the Shoulder-joint.—In a recent number of *L'Union Médicale,* M. Duplay gives an interesting account of this affection, which, though of common occurrence, has been very imperfectly described in all works on surgery. He shows that when the disease is present, the movements of the joint vary materially from the normal type. If, for example, the patient is directed to raise both arms to the head alternately, it will be observed that, on the well side, the humerus attains a horizontal position without involving any appreciable motion of the acromion process of the scapula. On the affected side, on the other hand, by the time that the arm is raised high enough to form an angle of 45° with the trunk, the acromion process begins to follow the movement. It will also be noticed, morever, that it is almost impossible to rotate the arm without involving the scapula in the motion. Other pathognomonic signs of the disease are crepitus and pain upon motion. When the patient is quiet he is usually comfortable, but pain is readily excited when pressure is applied to certain determined points, and this gives an important diagnostic sign for detecting this affection. The painful points are well determined, and may be described as—

1st. The edge of the acromion process, more particularly the posterior border, along the course of the circumflex nerve.

2d. The point of insertion of the deltoid muscle in the humerus.

3d. The vicinity of the coronoid process at the origin of the biceps muscle.

Still another symptom is the deformity of the shoulder which supervenes before the disease has existed very long. This is not, however, one of the early symptoms, and does not depend upon the extent of the periarthritis, but is due rather to the atrophy of the shoulder.

The disease is somewhat difficult to recognize, because so little has been written with regard to it. It has been confounded with fibrous anchylosis. In periarthritis, however, the adhesions are entirely *outside* the joint, and when in the course of treatment they are ruptured, in no instance has articular inflammation been thereby induced.

The most frequent cause of this affection is a contusion. At times, it has been known to come on after the dislocation of the shoulder, the reduction of which presented no difficulty.

As to the prognosis, the trouble, when recognized, may be easily relieved. The indications are to rupture the abnormal adhesions which bind down the deltoid muscle to the humerus. These adhesions, being composed of firm bands of fibrous tissue, should be broken down at a single operation, and not by a series of gentle manipulations. The treatment consists, then, in simply rupturing the adhesions and in preventing their re-formation. The atrophy of the muscle should be treated by means of the cold douche, moderate exercise, and the application of electricity.

A Case of Vaginal Hernia.—Dr. Bruyne, of Sleydinge, Belgium, reports (*Ann. et Bull. de la Soc. de Med. de Gand*) a case of this rare form of hernia. A woman was struck on the head by a falling ladder, with sufficient force to produce temporary unconsciousness. No unusual symptom was noticed immediately after the accident, but in the course of ten days she began to experience a sensation of weight in the hypogastric region, accompanied by a bearing-down feeling in the region of the womb. A digital examination led to the discovery of a tumor of considerable magnitude, situated in the vagina. This was at first taken for a prolapsed womb, but a more careful examination showed that the tumor was not a displaced womb, nor was it caused by a prolapse of the mucous membrane of the vagina. The nature of the swelling, its resistance, the facility with which it could be replaced, and the rapidity with which it returned as soon as the hand was withdrawn, all indicated that the tumor was caused by a prolapse of the intestine into the vaginal canal. Having settled upon this diagnosis, Dr. Bruyne proceeded to reduce the hernia. For this purpose pessaries of several patterns were introduced, but without affording the desired relief. A permanent reduction was finally effected by means of the air-bag of Gariel, but to enable the patient to retain the bag it was found necessary to distend by means of water instead of air.

The Cause of Scurvy.—M. Leveir, in a lecture *(Jour. de Med. et Clin. Pract.)* based on an epidemic of scurvy under observation at the hospital at Ivry, maintains that scurvy is not due to the absence of vegetables, and vegetables are not indispensable to its removal; but the malady is the result of insufficient alimentation, in bad hygienic conditions. Cold, humidity, excessive work, and depression of spirits, with deficient alimentation, ought to be considered the principal causes of scurvy.

In scurvy, the adipose tissue does not disappear; but the muscular system becomes fatty, the muscular striæ being replaced by fatty granulations, even the sarcolemma becoming absorbed.

The greatest number of recoveries occur in patients nourished on raw meat, without any intervention of vegetables.

Correspondence.

The Disinfection of Rooms. *Messrs. Editors:*—I find in the last number of the Journal some directions concerning the disinfection of rooms, which seem to me to be quite inadequate to effect the purpose. The subject is one of great practical interest just now. Among aërial disinfectants chlorine and sulphurous acid are most useful, but neither of these gases can be added to the air of a room in sufficient amounts to destroy the specific poison of smallpox without making the air irrespirable. Organic impurities of all kinds attach themselves to moist surfaces, and sulphurous acid gas seizes with avidity upon everything holding moisture. To completely disinfect a room, including its carpets, furniture and wall-paper, close the doors, windows and chimney; put from one to two pounds of brimstone (according to the size of the room) in an iron pot, pour over it a little alcohol, set it on fire, and leave the room for four hours. This process is injurious to the colors of many fabrics, and to gilded articles, and this injury corresponds in degree with the amount of moisture present in the room.

When disinfection by sulphur fumes is impracticable, the next best thing to do is to wet the carpet, furniture and walls with a strong solution of carbolic acid, one part in fifty of pure acid.

Clothing which can be washed may be disinfected by boiling in water for one hour.

Bedding, and clothing which cannot be washed, may be disinfected by exposure for four hours to dry heat at a temperature of 225° to 300° Fahr. This can be done in a large "brick oven;" but every city should have attached to its hospital for infectious diseases an oven specially arranged for the purpose.

Truly yours, Geo. Derby, M.D.,
Prof. of Hygiene in Harvard University.

Medical Miscellany.

Dr. Daremberg, author of the Histoire des Sciences Medicales and other works, and Professor of Medical History at the Faculty of Paris, died in that city, October 24th, at the comparatively early age of 55.

The Aberdeen Medical Student, a journal issued by the students at the University of Aberdeen, will be published in that city once a fortnight. Three members of the advanced class act as editors.

His friends in America will be glad to learn that Dr. Alex. Macalister, of Adelaide Hospital, Dublin, has been chosen to fill the new Professorship of Comparative Anatomy at Trinity College.

Dr. Frank P. Foster has resigned the office of House-physician of the New York Dispensary, and Dr. McBride succeeds him. Dr. Foster is appointed Director of Vaccination of the same Institution.

A New Monthly Journal, devoted to scientific and practical medicine, is to appear in New York, under the care of an eminent gentleman whose name itself is a guaranty of merit of the highest order.

The Census Report.—The second volume of the census report, which will shortly be issued by Government, will be devoted to vital statistics. It will contain a series of maps illustrating the locality and character of diseases, together with the climatic and physical conditions which affect them.

Smallpox Nurses, both male and female, are in demand at this time. Nurses who are willing to take charge of patients affected with smallpox will confer a favor by notifying the editor of this Journal.

The British Medical Act.—The case of the man named Andrews, indicted in the English courts for unlawfully taking and using the name and title of a physician, has again been brought to notice on his appeal from the decision made by the justices. The appeal was not sustained in Court of Exchequer to which it was carried. We congratulate Dr. Jukes Styrap, of Shrewsbury, England, for the able manner in which he conducted the case as public prosecutor in behalf of the Shropshire Branch of the British Medical Association.

The Museum of Dermatology and Syphilis, at No. 24 Charles Street, has been augmented the past week by the addition of sixty new specimens. It is now completed, and is at the present moment literally the finest in the world, since, in the words of the artist, Baretta, "it equals in point of numbers and far surpasses in perfection of workmanship the Museum of the St. Louis Hospital," in Paris, hitherto considered unrivalled. The Museum will be presented to the Harvard Medical School as soon as its new fire-proof building is erected. The Museum is temporarily at 24 Charles Street, and is open for the inspection of medical men daily from 1 to 3 P.M. Edward Wigglesworth, Jr., *Custodian.*

We learn that Mr. Druitt, of London, the Editor of the *Medical Times and Gazette*, and the author of several valuable professional works, is obliged by the state of his health to retire from active practice, for a time at least. A meeting of the leading men of the profession has been held, with a view to proper recognition of his eminent services.

The Medical Society of London will shortly move its quarters to 10 Chandos Street, Cavendish Square, in consequence of the lease of the present house in George Street having expired.

Books Received.—A System of Oral Surgery: being a consideration of the Diseases and Surgery of the Mouth, Jaws and associate parts. By James E. Garretson, M.D., D.D.S., Oral Surgeon to the Medical Department of the University of Pennsylvania, &c. Philadelphia: J. B. Lippincott & Co. 1873. Pp. 1091.

Pamphlets Received.—Report of the Surgeon-General, United States Army. 1872. Pp. 11.

Married,—In this city, 4th inst., John Homans, M.D., to Miss Helen Perkins.—4th inst., Thomas Waterman, M.D., to Miss Hattie H. Howard.

Deaths in sixteen Cities and Towns of Massachusetts, for the week ending Nov. 23, 1872.

Cities and Towns.	*No. of Deaths.*
Boston	151
Charlestown	19
Worcester	17
Lowell	19
Milford	4
Chelsea	4
Cambridge	19
Salem	6
Lawrence	12
Springfield	6
Lynn	13
Gloucester	8
Fitchburg	3
Newburyport	3
Somerville	5
Haverhill	2
	291

Prevalent Diseases.

Smallpox	55
Consumption	46
Typhoid Fever	19
Pneumonia	17
Scarlet Fever	10
Diphtheria and Croup	8

The deaths from smallpox were as follows:—Boston forty-seven, Charlestown four, Cambridge three, and Chelsea one.

George Derby, M.D.,
Secretary of State Board of Health.

Deaths in Boston for the week ending Saturday, November 30th, 176. Males, 92; females, 84. Accident, 3—abscess, 1—apoplexy, 1—asthma, 2—aneurism, 1—inflammation of the bowels, 2—bronchitis, 7—inflammation of the brain, 3—congestion of the brain, 1—disease of the brain, 2—burned, 1—cancer, 1—canker, 1—consumption, 22—cystitis, 1—debility, 2—diarrhœa, 1—dropsy, 4—dropsy of brain, 2—diphtheria, 1—scarlet fever, 6—typhoid fever, 5—gastritis, 1—disease of the heart, 4—jaundice, 1—intemperance, 1—disease of the kidneys, 3—disease of the knee-joint, 1—disease of the liver, 5—congestion of the lungs, 4—inflammation of the lungs, 11—marasmus, 4—old age, 5—prostatitis, 1—paralysis, 3—premature birth, 1—puerperal disease, 1—pyæmia, 2—scalded, 1—scrofula, 1—smallpox, 53—syphilis, 1—unknown, 1.

Under 5 years of age, 48—between 5 and 20 years, 21—between 20 and 40 years, 55—between 40 and 60 years, 30—above 60 years, 22. Born in the United States, 98—Ireland, 41—other places, 37.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

New Series.] Thursday, December 12, 1872. [Vol. X.—No. 24.

Original Communications.

LOSTORFER'S SYPHILITIC CORPUSCLE.

By F. B. Greenough, M.D. Harv.

It is now some months since the news came from the other side that Dr. Lostorfer, of Vienna, had discovered a certain corpuscle in the blood of syphilitic patients which was not to be found in other blood ; in other words, that he had found a means of determining, by a microscopic examination of the blood, whether the person from whom the blood had been drawn was affected with syphilis or not.

This report did not come as a mere statement, but was endorsed by such names as Hebra and Stricker, at least to the extent of certifying that he had, by means of the microscope, correctly made the diagnosis between syphilitic and non-syphilitic blood in several cases which had been given to him as tests.

Such a report, coming from such a source, and backed by such names, as a matter of course, attracted the attention of every medical man at all interested in the subject, and further developments were anxiously waited for. Probably in no other disease would such a simple and sure means of diagnosis be so desirable, certainly in none more so. When we reflect on the liability of syphilis to relapse, even after years of apparent immunity, and on the impossibility of giving a sure prognosis on the subject, it must be evident that if by means of the microscope we could tell patients whether they were free from any syphilitic taint, or not, much anxiety and unhappiness might be spared, and many of the questions so difficult to answer with regard to the advisability of marrying, &c., would be easily settled. Moreover, from a purely scientific point of view, undoubtedly the fact of the existence of a special specific corpuscle in syphilitic blood would open a field to investigators, the working of which might throw some light on the etiology of a disease which, although one of the most regular in its course, symptoms and indications for treatment, has, up to the present time, baffled the best observers in their endeavors to explain its origin or primary causes.

It is not to be wondered at, then, that such a claim as Lostorfer's should have produced much excitement in the medical world, and, although most of the discussions that took place and the papers that were read on the subject before the Gesellschaft der Aerzte have already been placed before the American medical public,* perhaps a brief and condensed abstract of the proceedings will not be without interest at this later period, when the first excitement on the subject has abated.

At the meeting of the Gesellschaft der Aerzte, held at Vienna on Jan. 29th, 1872, Dr. Adolf Lostorfer stated that he had discovered a means by which blood coming from syphilitic persons could be distinguished from persons not affected with that disease. He had received from Dr. Stricker several specimens of blood, on microscopic slides, part of which were from syphilitic and part from healthy persons, and on the third, fourth, or at latest the sixth day, he had given the results of his examination, which, with the exception of some cases where the specimen was in a condition to preclude any satisfactory examination, his diagnosis tallied with the record which had been kept of the sources from whence the blood came. A similar test to which he was put by Hebra resulted in the same way.

He explained his method of examination, which may be briefly described as follows. A drop of blood, obtained by a prick, was placed on a glass slide and covered with a covering glass. It was then placed in a receptacle, so arranged as to have the atmosphere kept moist. These preparations, examined with Hartnack's No. 10 immersion object-glass, and No. 3 ocular, for the first two days showed nothing abnormal, beyond some vibrios, bacteria, and some of the earliest germs of sarcinæ, but on the fourth or fifth day small shiny bodies appeared, on some of which was seen a small process. These increased both in size and number during the next few days, when some of them were as large as a shrivelled red corpuscle. The number of processes, also, had increased, some of which had a secondary process attached to them. On the eighth to the tenth day a vacuole could be seen forming in the centre of these bodies, which increased in size until it seemed to be bounded merely by a thin layer, shown by a double line. This seemed to be the limit of development. Various reagents were added to these preparations. When tested in this way on the first day, they shrivelled up into a dark, irregular mass, whereas, when tested later, on the sixth or eighth day, although they were somewhat affected and shrunk, the effect produced on them was markedly less.

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* See Dr. J. H. Chadwick's letters to the Boston Medical and Surgical Journal, vol. ix., and Dr. F. J. Bumstead's translation of Stricker's *resumé* in the Am. Jour. Med. Sciences for July, 1872.

For three months he had examined blood of non-syphilitic patients, some healthy and some affected with other diseases, and as in no case, except a syphilitic one, had he found these corpuscles, he considered himself justified in calling them syphilitic corpuscles.

He then read the records of thirteen cases, from which he drew the conclusion that the presence of these corpuscles was not limited to any period of the disease, but that they were found during all stages, from the primary lesion, before the appearance of any eruption, to the latest forms of the so-called tertiary manifestations. While he felt compelled to see a connection between these corpuscles and the syphilitic taint, he did not claim that they were the bearers, as it were, of the contagion, nor did he feel able to decide as to the source from which they sprang, as it might be either that they had existed in the blood and were by the process of examination caused to grow, or that syphilitic blood has the property of having such corpuscles appear in it, coming from some source, to us unknown.

Dr. Stricker gave the number of preparations of syphilitic and non-syphilitic blood that had been given to Lostorfer, amounting to fifty-nine, in all of which, with the exception of one set of twelve, the diagnosis, when given, corresponded with the facts. There were, however, some in this number from which he said that he could draw no conclusions, as the preparations were not in a condition to use. In the set of twelve above mentioned, no conclusions were arrived at; the temperature at which these examinations had been made was 12° to 15° C. In all these preparations, the non-syphilitic blood was taken from apparently healthy individuals.

At the meeting of the same Society, held on February 9th, Prof. Wedl briefly reviewed Lostorfer's claim, and gave the results of a series of investigations he himself had been carrying on. He mentioned the fact that in microscopic examinations made with a certain object, we are very apt to see those things that we wish to see, and not to notice those that would tend to contradict our preconceived ideas, and hinted at the possibility of Lostorfer's not having searched as carefully for the corpuscles in blood known by him not to be syphilitic, as in other cases where he wished to find them. He (Wedl) had found corpuscles in blood corresponding to those described by Lostorfer, but was convinced that they were either small fat-cells, or the remnants of broken-down white corpuscles. He accounted for the presence of fat-cells in the specimens by supposing that when the skin was pricked, either by the pressure of the instrument or by squeezing the skin to bring out the blood, the contents of the sebaceous glands in the vicinity was emptied and mixed up with the blood. That these corpuscles were really fat-cells, was still further proved to him, by the fact of his having made a fine oleaginous emulsion, and finding the exact counterpart of them in it, under the microscope. He also claimed that the vacuoles mentioned by Lostorfer were the result of a process of decomposition by which carbonate of ammonia was generated to the action of which on the fat-cells the vacuoles must be attributed. He had not found it necessary to wait for some days before being able to see these bodies, as they could be seen immediately by simply washing away with distilled water the masses of red corpuscles which, for the first few days, fill the field and obstruct the sight.

This communication was followed by a spirited debate, in which Stricker and Lostorfer endeavored to overthrow the position taken by Wedl, i. e., that the corpuscles described by Lostorfer were nothing but fat-cells. Stricker did not doubt the fact of Wedl's having seen fat-cells in blood, but he denied that they were identical with the corpuscles described by Lostorfer. Wedl admitted that he had never seen the corpuscles in Lostorfer's own preparations, but claimed that it could not be expected that scientific investigators should always go to the fountain head in order to see any claimed discovery. Stricker, while he admitted this, insisted, nevertheless, that in order that an investigator's results should have any weight in any given question, it was absolutely necessary that he should understand and follow the method used by the original worker, and this was what Wedl had not done, as by his own confession he had found his so-called fat-cells after the preparation had been washed with distilled water; whereas Lostorfer had not used water at all, except on occasions as a re-agent, and its effect then had been to shrivel up and destroy the corpuscles. Evidently, therefore, the bodies studied by Wedl and those described by Lostorfer were not the same.

A committee, consisting of Rokitansky, Reichart, Karsten, Klob, Brücke, Billroth, Von Basch and Auspitz, was appointed to investigate the subject.

At the meeting held Feb. 16th, this committee reported that they did not consider the subject a suitable one for an official investigation, and requested to be relieved from duty.

In the second number of the fourth year of the *Archives of Dermatology and Syphilis*, Dr. Stricker published an account of his researches on this subject. He gives, with German accuracy and minuteness, the method pursued by him in making his examinations, and then his results. He found in fresh blood many small bodies, which he supposed to be bits of coagulated fibrine or *débris* of protoplasm; whatever may have been their nature, however, the only important point in this connection is that they were not Lostorfer's corpuscles, as is proved by the fact that they disappeared entirely in a day or two, whereas Lostorfer's corpuscles do not appear until a day or more from the time the blood is drawn. Stricker claims to have seen small bodies actually appear under his eye in the field in clear spaces (plasma insel), and to gradually increase in size until they presented the typical appearance of Lostorfer's corpuscles. This was seen in a preparation that was examined in a warm room, and on the next day he observed the same phenomena even more successfully by having an apparatus so arranged as to keep his slide heated to 25° C. He also saw that the processes described by Lostorfer were not the result of an outgrowth from the corpuscles, but of a union of two, which process of union he saw take place several times. It would take too much space to give even a condensed abstract of the investigations made by Stricker in determining the nature of these bodies; suffice it to say that they were made in the most careful manner, and that any one by reading his article can convince himself that the following deductions which he arrived at are logical and well drawn.

These bodies do not exist, at least of a size appreciable by the highest magnifying power we possess, in fresh blood. They are organic in their nature and are slowly developed at a temperature of 10° C., and probably at a still lower degree of temperature would not develope at all. In a temperature of 20° to 25° C., their development goes on quite quickly, and at blood heat still more so. When they have reached their full growth, they remain without change for some days, even if they are brought in contact with water or moisture.

With regard to the origin of these bodies he does not attempt an explanation. They must, of course, either come from the blood itself or from the air; if the former is the case, they must either spring from small cells or sporules so minute in size as not to be appreciable by our microscopes, or else be the result of spontaneous generation. If we assume that they come from the air, we might suppose them to be of the nature of bacteria, only we should have to assume that these bodies took a form of development hitherto unkown, when planted in certain kinds of blood.

Stricker's second series of investigations were made with the view of seeing whether these bodies were, as Lostorfer claims, only found in the blood of persons having syphilis, and his deduction on this point is unequivocally no. He examined the blood of healthy persons, and of several suffering under acute diseases, without finding them; but the fact of a syphilitic patient, in whose blood they had been found in great abundance, having had a severe attack of hæmoptysis, suggested to him the possibility of these corpuscles being in some way connected with a depressed and cachectic state of the system. The result of his researches in this direction was to find them in the blood of a patient with cancer of the stomach, in large quantities in two cases of tuberculosis; in a case of Bright's disease with a cardiac complication, and in an anæmic convalescent from smallpox. Hence he concludes that Lostorfer's claim that the bodies are only found in syphilitic blood is not founded on fact.

He admits that his examinations have not been sufficient in number to prove that these bodies never appear in the blood of healthy persons, or of those having some acute sickness, but claims that he has shown that they are sometimes found in chronic diseases of long standing, accompanied with much disturbance of nutrition, and that they are often present in cases of syphilis, and that the subject is worthy of farther investigation.

In the *Berliner Klinischen Wochenscrhift* appeared an article by Dr. Köbner, of Breslau, giving the result of his investigations, and the deductions derived therefrom, which differ materially from Stricker's. Space does not permit of even an abstract of his work, but the following is his result:—he claims to have found bodies in the blood after more or less time, depending on the mode of treating the preparations as regards sealing them up air-tight or not, degree of temperature in which they were kept, &c., which correspond to the corpuscle described by Lostorfer, but that he found them as well in blood of healthy and acutely sick persons as of syphilitic ones. He supposes these bodies to be what have been described by botanists and zoölogists under the name of vacuoles. They are thought to be very small drops of water, less dense than the surrounding medium, and consequently refracting the light less, and enveloped by a thin wall of albuminoid matter, derived from the surrounding medium. These bodies have been the subject of a paper by Prof. Haidenham, who calls them albumen drops (Eiweistropfen).

Such is in a very condensed form the amount of light that has been thrown on the Lostorfer corpuscle, and, although condensed, the illumination is not very dazzling. Two questions naturally suggest themselves:—1st. Do such corpuscles make their appearance in blood; and, 2d, if so, is their presence confined to syphilitic blood.

There seems to be no doubt but that Lostorfer and Stricker did see something of the sort in blood, and Wedl also; but the latter did not see what the two former did. There is certainly something suspicious in the extreme nicety of treating the preparations by heat, moisture, &c., in order to make the bodies appear, and as they only appear after a certain lapse of time, and under a certain method of treatment, it is evident that they do not exist as such in the blood while circulating, except of such an infinitely small size as to be beyond the power of vision aided by the strongest magnifying power. That in certain pathological conditions certain cells might be found in the blood, does not seem impossible; but that the infinitely minute germs of such bodies should exist, which can never attain their full development unless the blood in which they exist is removed and kept carefully for a certain lapse of time at a certain temperature, does seem most marvellous and repugnant to the general plan of adaptation of means to the end and cause and effect, which we see even in those, so to speak, irregular and abnormal actions of nature which we call pathological changes. Of course the fact that anything seems absurd is no proof of its impossibility; but the fact of its apparent absurdity must have an influence on any logical mind, and at least gives us the right to demand the most convincing proof before we admit it.

With regard to these corpuscles (supposing them to exist) being confined to syphilitic blood, the answer drawn from the evidence before us is an easy one. The only reason for supposing that they are peculiar to syphilitic blood is the fact that Lostorfer has not found them in any other; other observers have, which settles the question.

As far as Stricker's suggestion goes, that although not necessarily connected with syphilis, they do develope in blood of cachectic patients, we can only repeat his own admission, namely, that the number of investigations made is not sufficient to prove it, but it does seem a more plausible way of accounting for them than Lostorfer's. If it should be found that these bodies do constantly appear in the blood of cachectic persons, it would be very interesting to see whether their presence in blood might not be connected with that form of visceral degeneration known as amyloid, which we are apt to find in such subjects, especially in the spleen; perhaps some light might thereby be thrown on the function of that organ, and the genesis of the blood corpuscles.

With regard to the practical advantage of this discovery, if it be one, we can speak more decidedly. When such microscopists as have entered the lists on both sides of this question cannot agree as to the appearance and identity of bodies seen, it cannot be expected that much light can be thrown on the diagnosis or indications for treatment by the microscope in the hands of the average physician.

ON THE EXTRACTION OF CATARACT.

By Hasket Derby, M.D., Boston.

While extremely glad that Dr. Williams has called the attention of the profession* to the new operation for cataract, strongly advocated and largely practised by Liebreich, I am unable to coincide with the criticisms he offers on the method of Graefe.

The peripheric linear method was brought forward by its distinguished author as a substitute for the ordinary flap extraction, and was considered, not only by him, but generally by his scholars and followers, to combine a larger measure of success with fewer attendant dangers than that operation, which it succeeded in almost completely crowding out of sight. The consequent general abandonment of flap extraction can hardly be better illustrated than by quoting from Warlomont's notes of his visit to the recent Ophthalmological Congress at London.

He says:—

"Bowman, the king of operators, appears abandoned to the most absolute eclecticism. He, so to speak, chooses for each case singly the procedure to be employed. We have even seen him—*horresco referens*—do several flap extractions, without the least iridectomy, in a word the classic operation, and never once blush. But then what wonderful dexterity!"†

The operation of Graefe is probably more largely practised than any other at the present day, especially on the Continent. The disposition to seek out a better one is no doubt universal, and when that better one is found, the striving after perfection will none the less exist. For the present, the question is whether a safer method, that promises as good or better results, has actually been discovered.

Dr. Williams charges Graefe's operation with involving, *first*, a wound so near the ciliary region that sympathetic ophthalmia is a possible danger; *secondly*, with causing a chance of separation of the retina; and, *thirdly*, with involving a possible loss of vitreous. The relative frequency of such accidents can be estimated only by referring to tabular statements of the performance of the operation. I find most convenient for this purpose Prof. Knapp's series of 300 cases,‡ Dr. Snellen's of 208,§ Dr. de Wecker's of 86, done during the second semester of 1871,* and the notes of 92 occurring in my own practice, forming an aggregate of 686 cases, all carefully recorded and thoroughly analyzed, with the ultimate result noted in almost every instance.†

In 21 of these 686 cases the eye was lost. *Sympathetic ophthalmia occurred in no instance. Separation of the retina but once,* and then in an eye laboring under sclerotico-choroiditis posterior.

Vitreous was lost 112 times. This number seems very large, but it must be remembered that not only the slightest losses are recorded, but that when the operation was new the exit of the lens was accomplished with much more difficulty than at present, traction instruments having frequently to be employed. As the method of accomplishing the safe delivery of the lens became more generally understood the frequency of loss of vitreous gradually and steadily diminished. Prof. Knapp met with this accident 23 times in his first 100 cases, 18 in the second and 9 in the third. Dr. de Wecker had but five escapes of vitreous in his last 86 operations. It is, I think, now generally admitted that vitreous is, to say the least, as little likely to be lost in doing Graefe's method as in ordinary flap extraction.

These figures, therefore, do not support the theoretical objections urged against the peripheric linear operation. More carefully prepared tables than those from which I have quoted it would be difficult to find.

Dr. Williams very justly alludes to the necessity of the removal of a piece of the iris as an objectionable feature of Graefe's method. That an iridectomy is to a certain extent a deformity, and that it somewhat impairs the acuteness of vision, no one can doubt. But that it is a safeguard against some of the accidents and processes most dreaded after an extraction, will now generally be admitted.

We should all be open to conviction. I will frankly admit that the results of the new operation which I witnessed this summer at the *clinique* of Liebreich in Paris, and the numerous cases in which I saw him perform it, inspired in me an earnest wish that this might prove to be the operation of the future, and have caused me to enter on its performance since my return. For facility of execution, slightness of anatomical injury or pain inflicted, and personal independence of the operator of assistants, anæsthetics and apparatus, it unquestionably bears away the palm. The only question that arises is, as to the statistics of success it will, on the whole, furnish. On all who are interested in a decision of this question I cannot too strongly impress the importance of a thorough record of all cases, a statement of the age, sex and condition of every patient, diameter of cornea, dilatability of pupil, perception of light and projection, notes of operation, incidents of after-treatment, and, finally, a careful record of vision for the far and near. While general statements make but a slight impression, the scientific accuracy afforded by the collation of such data is indisputable.

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* Journal of December 5th.

† Annales d'Oculistique. Juillet–Aout, 1872, p. 32.

‡ Archiv. für Ophthalmologie, 13, i. 85. Ibid., 14, i. 285. Knapp's Archive, vol. i. p. 103.

§ De Operatie der Senile Cataract. Utrecht. 1871.

* Annales d'Oculistique, Mars–Avril, 1872, p. 157.

† Writing hastily, as I do, I regret not to be able to quote our series of over 60 operations performed and recorded at the Massachusetts Charitable Eye and Ear Infirmary during the past year.

A New Method of Dissolving Iodide of Lead.—M. Tommaso, in a memoir presented to the Royal Pharmaceutical Society of Brussels, suggests a new method of rendering iodide of lead soluble, with a view to making it practically useful in medicine. Alcohol, ether, chloroform, acetic acid, glycerine, &c., dissolve only traces of the iodide. It is soluble, also, in 1235 parts of cold, or 194 parts of boiling water. It is freely soluble in solutions of hydriodic acid or of the alkaline iodides, forming with them double combinations. M. Tommaso adds to a solution of acetate of lead acidulated by a few drops of acetic acid, a solution of iodide of potassium to which has been added carbonate of soda. Carbolic acid is freely given off, and the yellow deposit of iodide of lead quickly dissolves.

By this method a more favorable combination can be made with glycerine in the treatment of uterine diseases, for application to the eyelids, &c. M. Tommaso prepares this glycerine by mixing in a porcelain mortar the following substances until the iodide of lead has entirely disappeared:

Saturated solution of acetate of soda, 15 cc.; glycerine, 25 cc.; iodide of lead, .4 gr.; rose water, a few drops.

London Pauperism.—The total number of paupers in metropolitan workhouses on the last day of the fourth week of September 1872 was 32,444, and 68,472 received outdoor relief, making a total of 100,846. Compared with the corresponding week of the years 1871, 1870 and 1869, this was a decrease of 16,664, 27,557, and 27,731 respectively. The number of vagrants relieved was 465.

Progress in Medicine.

REPORT ON DERMATOLOGY.

By James C. White, M.D.

[Concluded from page 395.]

Nature of the Dartrous Diathesis. Charpy (*Annales de Dermatologie et de Syphiligraphie, troisième année*).

It has always been a puzzle, not so much to know what "la dartre" is or is not, for that is generally given up as an impossibility to all minds not of French origin, but to find out what French dermatologists really believe it to be. The more one read, the less definite were his ideas on this point, for no two authorities gave the same definition to the term, which is not strange of things imaginary. It was easy for any two to describe in the same words the appearances of eczema and psoriasis, and to say that these were characteristic of "la dartre," but when they went beyond these cutaneous manifestations and, dropping their descriptions of plain eczema and psoriasis, attempted to tell what else there was, everything became vague, for nothing real remained. Now comes the new school of dermatology, and one is curious to learn what may be picked out of the teachings of pathological histology to affect the existence of "la dartre," or how they are to be construed to conform to the older theories regarding it. M. Charpy, Ex-Interne des Hôpitaux de Lyon, undertakes to do this in a series of articles published in the journal above named.

A diathesis he regards as an evil spirit shut up within the tissues and, though quiescent, powerful until it chooses to reveal itself. "La diathèse est vulnérabilité d'un tissu dégénéré," the tissue receiving at its birth an original stain of imperfection. The dartrous diathesis is not a disease of the sanguineous system; the alterations of the blood are secondary and not primitive. What the dartrous person transmits to his child is not an altered blood, but a machine liable to be attacked, stricken with weakness; the child in its physical structure reflects that of its parents. A person with this diathesis under provocation exhibits an eczema. In what does this consist? According to results of modern research it is all reduced to a proliferation. This proliferation, he tells us, is a disturbance of equilibrium, a deviation of motion out of proportion to the force of impulsion, and this in consequence of the imperfect structure of the cell. Excessive proliferation is not exuberance of force, but a sign of feebleness, the feebleness of irritability, &c. &c. &c.

Thus we might go on repeating the writer's words for pages; but to what purpose, except to illustrate the great fault of his school? Would Frenchmen give half the time and ingenuity to good honest observation which are spent upon verbose theorizing, there would be more hope for the advance of medical science among them.

On the relations of Erythema nodosum to Rheumatism. Siredey, Médecin de l'Hôpital Lariboisière (in No. 4, same journal), without quite admitting the existence of another diathesis, the arthritic of Bazin, believes fully in its rheumatic nature. He says:—It shows itself in successive crops, just as rheumatism attacks the joints successively; the earliest nodes have begun to recede as others rise, as a joint, actively affected, becomes less painful when another is attacked. The eruption shows itself upon the limbs, and is especially confluent over the joints, which are the favorite seat of rheumatism. Finally, in spite of the size and hardness of this erythema, presenting in certain cases an induration and volume which cause it to resemble anthrax, they never suppurate; and like the articular outbreaks of simple rheumatism, they always undergo complete resolution. For all these reasons, he believes that erythema nodosum has more than coincided with rheumatic pains, that it has been accompanied by *arthrites veritables*, and that it appears to be of the same nature as the morbid articular manifestations, that is that like the latter it is subordinate to the rheumatic diathesis.

Anatomy of Herpes zoster. Wyss. *(Archiv fur Dermat. und Syph.*, Drittes Heft, 1872, from *Arch. d. Heilk.*)—Death followed the outbreak of the eruption upon the right forehead, nose and cheek on the eighth day, in the case reported. The following changes were found on examination:—The ramus i. nervi trig. dextri is broader and thicker than the left, of a reddish gray color, softer consistence, and the individual bundles separated by reddish gray soft tissue, in which numerous vessels were found. The nerve shows this change from the entrance into the orbit to its finest ramifications, as far as they can be followed with a lens. The nerves in the orbit not belonging to the trigeminus are perfectly normal. The ramus i. is surrounded by an extravasation of blood from the orbit to the ganglion Gasseri. The ganglion itself is larger and more succulent than the left. On its inner side lies a red appendix, apparently composed of extravasated blood. The ganglion substance itself is not yellowish-white, but clear red. The exit-point of the trigeminus from the brain is normal, but where it enters the ganglion are numerous extravasations of blood, as well as where ramus i. leaves it, while the points of origin of rami ii. and iii. appear very little changed. In the first portion of the ganglion, the district from which ramus i. arises, is a large extravasation of blood; here, also, is the ganglion substance filled with pus cells to a high degree, so that its cells are pushed far apart and partly destroyed. There is no abscess formation, however.

On microscopic examination of the outer skin, the papillæ and corium were found strongly infiltrated with cells. The rete was preserved in some places, destroyed in others.

Wyss presents this dissection as the first of the very few known, in which the herpes was still in an early stage, and in which the changes discovered in the nerve and ganglion could not be regarded as appearances produced in consequence of disease of the neighboring organs. He considers it, therefore, as more definitely established than before, that, as Bärensprung teaches, herpes zoster stands in casual connection with an inflammation of the corresponding spinal ganglion and the nerves passing from it.

Treatment of Scabies. Weinberg. *(Archiv fur Dermatol. und Syph* Drittes Heft, 1872, from *Wiener Med. Wochenschr.*)—Dr. Weinberg, physician to the Shoemakers' Society in Vienna, which sends the greatest number of scabies patients to the hospital, gives the following results of his method of treatment with styrax. Peruvian balsam acts most favorably, but it is too expensive. Styrax and olive oil, ℥i. of the former to ℥ij. of the latter, for persons of tender skin will generally suffice in two applications. For the class of which hospital patients are generally composed, however, he prefers a rougher mixture, capable of acting mechanically as well as chemically upon the skin, and uses the following preparation, on the plan of the Wilkinson ointment. ℞. Styracis liquid., florum sulfur., cretæ albæ, āā unc. semis.; sapon. viridis, axungiæ porci, āā unc. unam. M. This ointment has a greenish yellow color and rather pleasant odor. It combines in itself the advantages of Vlemingkx' solution in its rapid destruction of the acarus and its eggs, and of the Wilkinson's ointment in relation to its healing action upon the eczematous and pustular eruption, without the disadvantages they possess; for it does not easily excite an artificial eczema, even upon a tender epidermis, nor does it harm the clothing.

The method of using it is simple: The patient, before going to bed, rubs the ointment over the whole body, but with especial thoroughness into those portions which form the favorite seat of the animal—the buttocks and penis (in shoemakers), the thighs and hands. The same process is repeated on the two following evenings, the same night-clothes being used. During the day the patient attends to his usual occupation. At the end of three additional days, he takes a bath and cleans himself. Before the treatment, a bath is only ordered for the patient when the skin is very dirty. According to the extent of the disease, from one to three ounces of the ointment are sufficient for one person, and the cost is very low.

Patients thus treated state that after the first use of the remedy over the whole body the itching soon diminishes, so that on the first night they sleep much more quietly, and after the second or third application it ceases as a rule wholly. The individual burrows and pustules dry up, and the outer layer of epidermis over the more tender parts, as the scrotum and penis, are cast off, about the fifth or sixth day, in thin lamellæ with the dried salve. When eczema is present, the places thus affected cover themselves with a dry crust, which falls off in a few days. Cases complicated with severe eczema, many pustules and furuncles, must of course undergo the usual preliminary treatment in the hospital.

The styrax ointment is also applicable with women and children, diluting it with ung. simpl. for infants, and may easily be used in any private dwelling

v. Rothmund (same journal) gives his experience with the use of carbolic acid in the treatment of scabies. He prescribes either acidi carbol. scrupulum, olei lini or glycerini uncias ij.; or natri carbolici unciam dimidiam, aquæ destill. uncias sex. With this the patient is rubbed three times a day, and according to his statement two and a half days are sufficient to cure the most inveterate case. Petroleum, after trial, he rejects as inadequate in the disease.

Impetigo rodens ulcéreux et non ulcéreux (Jahresbericht der Gesammten Medicin from *Bull. Gen. de Therap.).*—Devergie gives in this article the description of an affection which occurs frequently, but is often mistaken, being confounded with cancroid. The distinguishing marks of each he gives as follows. In cancroid, both edges and base exhibit a positive induration, while in Impet. rod. ulcer. only the elevated edges show this change; the form of the first is more round, while that of the latter is elongated, more or less deep, and not unlike the syphilitic ulcer. The secretion of cancroid shows itself as a bad-smelling, thin fluid pus, that of Impet. rod. as a mixture of healthy pus with serous fluid without smell. In Impet. rod. the slightest disturbance produces bleeding, in cancroid it does not. Both are seated most frequently on the face; the cancroid possibly affecting the whole face and especially the lip, while Impet. rod. constantly attacks the region of either corner of the eye or the side of the nose. The impetiginous affection starts from several circumscribed small points and fissures which slowly increase in size. The surrounding skin is perfectly healthy, there are no lancinating pains, and only a slight itching. Cancroid always starts from a single point, which rapidly enlarges. The pains are of a lancinating character. In the former, the induration is manifest from the beginning, in the latter, late, often only after years.

From ordinary impetigo, this form is distinguished by always leaving indelible scars, which is never the case with the former.

Devergie divides Impetigo rodens into two classes: Impet. rod. ulcerosa, and Impet. rod. non-ulcerosa. The last is again subdivided in two forms. The one begins with several small, grayish, slightly elevated papules, mostly in the neighborhood of the eyelids, the bridge and sides of the nose, which leave behind them scars after their disappearance. The other form begins as little vesicles or pustules, mostly in the region of the inner angle of the eye, with slight itching. The vesicles or pustules burst, and crusts are formed which, later, fall off and leave flat cicatrices. The efflorescences which subsequently develope start from the circumference of these scars. No special inconvenience is felt by the patient, so that a physician is not consulted until after a duration of several years. With Impet. rod. ulcerosa the course is quite different. This begins in the form of inpetigo, passes after a while into ulceration, which extends both superficially and downwards, although slowly. Its edges are elevated, indurated, and bleed easily. Its seat is mostly upon the cheeks, in the region of the nose and eyes, and is unaccompanied by pains. From lupus this form of impetigo is distinguished by the fact that the efflorescences are accurately defined, and that the neighboring skin is not at all affected, whereas in lupus the latter is thickened, reddened, and not sharply separated from the diseased part. Scrofula and syphilis are generally, and in the main not incorrectly, considered as causes of Impet. rod. ulc., although this is not always capable of demonstration in individual cases. The non-ulcerating form, however, has nothing to do with these dyscrasies. It is on this account that local treatment is sufficient in this form, while in the other local and general must be combined. In order to meet the indications produced by scrofulosis and syphilis, Devergie makes use of cod-liver oil, a syrup containing iodides of iron and potash and sublimate, and in addition a tea of walnut leaves with which Fowler's solution is mixed in doses increased by 1 to 12 drops daily. This method of treatment he calls "médication mixte." With it local treatment, which by itself is not sufficient in Impet. non-ulcer., must always be combined. Canquoin's paste of chloride of zinc he considers the most effective, as it causes little pain, is easy to apply, and, when well prepared, does not irritate the surrounding parts. Impet. rod. non-ulcer. may be healed by this method in the course of from 14 to 18 days.

Ichthyosis.—Boeck (*Jahresbericht der Gesammten Médicin* from *Norsk Mgz. for Lägevidensk*) gives an account of a form of this affection which prevails in certain parts of Norway, the symptoms of which are as follows: The children are born with a fine red skin, which gradually becomes hard. After a few months, the development of scales begins, which after a while produces thickening, which is divided according to the direction of the grooves of the skin. It is only on the palms and soles that no scale formation takes place A great part of the concha is united to the skin of the head. The secretion of sweat generally diminishes or ceases; in a person exhibited it was normal only on the forehead, in the axillæ, and on the soles of the feet. When heated this patient was oppressed, and very shortbreathed; he had great thirst, and urinated much. In later years the face becomes darker. Ophthalmoscopic examination revealed beginning cataract formation, an anæmic fundus, atrophy of the papilla n. optici, diminution in size of the vessels (especially the arteries), retinitis pigmentosa, and a considerably diminished field of vision.

Scleroderma.—M. Pasturand communicates to the last number of the *Ann. de Dermatologie et de Syphiligraphie* (*troisieme année*, No. 5) the report of a case of this rare affection with the remarks of M. Hillairet, of St. Louis, upon it. He regards it as an affection of the skin, characterized by its induration, without change of color, without hypertrophy of the cutis, with induration and compression of the subcutaneous cellular tissue. The literature of the subject seems to have been thoroughly consulted in the preparation of the article, but it gives us but little additional information concerning the nature of the disease. He does not accept the results of the very careful researches of Auspitz, who found a considerable hypertrophy of the connective tissue causing a stasis of the blood in the capillaries of the cutis; and is kindly disposed to the hypothesis of M. Horteloup fils. According to this writer in his inaugural thesis, the induration of the skin in scleroma is due to a permanent spasm of the muscular and elastic fibres of the skin which are connected with the grand sympathetic. The primitive lesion is supposed, therefore, to be seated in the ganglionic centres. In this way the symmetry in its progress and its generalization are explained.

This for an hypothesis is worth its present value; we prefer to accept the demonstrations of Foerster and Auspitz with regard to its pathological anatomy.

Anatomy of Elephantiasis Arabum. (*Archiv. f. Derm. und Syph.*, Drittes Heft, 1872, from *Virchow's Archiv.*) Van Lair examined the leg of a woman affected with this disease, and obtained the following results:—

1. Elephantiasis dura of the extremities consists essentially of a hyper- not a hetero-plastic process. 2. The first symptom is an erysipelas of a peculiar kind. 3. The second stage is characterized by a progressive hyperplasy affecting all the layers of the skin uniformly, with a corresponding atrophy of the subcutaneous fatty tissue. The increase of the papillary bodies is connected with an exuberant growth of the epidermis. 4. The height of the disease is marked by a commingling hypertrophy of both the main layers of the skin, whereas the papillary layer, although equally hy-

pertrophied, remains always sharply defined and the fatty layer disappears more and more. 5. The papillary bodies retain their physiological function the longest. 6. The exemption of certain portions of the skin from enlargement is explained by the pressure which the skin exercises upon itself, about the folds of the joints, for instance. 7. The lower portion of the corium is distinguished from the upper not only by the direction of its fibres in the serous infiltration, but especially from its yellowish-brown color in consequence of the excessive development of elastic tissue. 8. In the beginning of the second stage, collections of lymphatic cells are found in the uppermost layer of the hypertrophied fibrous tissue as well as between the bases of the papillæ. The same cells, though not the collections, occur in the same way in simple erysipelas, in the first stage of scleroma, and in œdema of the skin. 9. The occurrence of such collections is plainly attributable to the emigration of colorless blood corpuscles, although their meaning is not yet determined. 10. From a clinical point of view, elephantiasis dura deserves the name " diffuse fibroma " given to it by Virchow only in the third stage. In its first periods, the hyperplasy is too widely extended and of too peculiar course to be classed on a level with a simple fibromatous new growth.

(Strange to say, the condition of the lymph vessels, which are generally considered now to play the most important part in the pathology of the disease, are entirely neglected in this examination.)

On the Anatomy of Xanthoma, Xanthelasma, Vitiligoidea.—This peculiar growth upon the eyelids, its appearances, clinical history, and supposed relations to icterus, have been much written upon during the past few years; but our knowledge concerning its true nature is still contradictory and somewhat unsatisfactory. The latest contributions to the literature of the affection, especially relating to its anatomy, about which so great discrepancy of opinion prevails, are by Dr. Kaposi, Professor Hebra's assistant, and by Drs. Geber, of Vienna, and Simon, of Berlin. The former (*Wiener Med. Wochenschr.*, 1872) concludes, from his histological investigations, that the disease is an interstitial new growth of fibrous tissue, with deposits of yellow fat in the tissues, not fatty degeneration of their elements. Notwithstanding this result, he prefers xanthoma for a title to fibroma lipomatodes, the name proposed by Virchow.

The latter investigators (*Archiv. f. Derm. und Syph.*) arrive at conclusions, from their microscopical examinations in two cases, unlike those above recorded, as well as those of previous observers, but which tend to confirm the original opinion held by Hebra, that the disease is an affection of the sebaceous glands. The epidermis and corium were not materially altered, although the tissues of the latter were occupied throughout by a new formation of cells. It was in the sebaceous glands and their connections that the characteristic changes were seen. Their epithelial cells were found greatly enlarged, while in immediate contact with them, and surrounded by bundles of fibrous tissue, were collections of similar large round or polygonal cells, occupying large portions of the cutis. Such groups were partly in long flattened streaks or masses. They regard the disease, therefore, as a hyperplastic development of the cells of the sebaceous glands. According to Virchow's investigations the growths are made up of a development of connective tissue cells, the central portions of which have undergone fatty infiltration, while the outer and younger portions are free from fat and resemble sarcoma. Waldeyer's examinations confirm these of Virchow, so far as the nature of anatomical changes is concerned. Geber and Simon, however, deny in advance the supposition that they have mistaken fatty connective tissue cells for sebaceous hypertrophy, and maintain the epithelial nature of the cell they discover. They deny, also, that the collections of cells are the result of any secondary changes in the sebaceous glands, such as plugging and consequent dilatation, and affirm that they resemble in all respects, especially in their progressive growth in the fibrous tissue, a proliferating new-growth. They conclude, therefore, that entirely distinct pathological processes are described and identified under the title Xanthoma. This communication is illustrated by beautifully clear plates of the microscopic anatomy of sections of the diseased tissue in Dr. Heitzman's well-known style.

Lupus Erythematosus (*Archiv. f. Dermatologie und Syphilis*, Erstes Heft, 1872).—Dr. Moriz Kohn, or Dr. Kaposi, as he now desires to be called, author-in-chief of the continuation of Hebra's work on Skin Diseases, offers in this journal a new and very extended contribution to our knowledge of this peculiar affection, supplementary to an article on the same subject in a previous number (1869). His present object has been to demonstrate that it is to be elevated from the rank of a simple superficial affection of the sebaceous glands, nearly akin to true lupus, and of very restricted spread, as it has been hitherto regarded by modern dermatologists, to the possible position of a disease depending upon deeper-seated anatomical changes in the skin, and accompanied by general symptoms of the gravest or even of a fatal character. These more serious views of the nature of the affection are based upon the observation of eleven new cases, which are published in detail, and by farther examinations of its anatomy furnished by them. From these data he draws the following conclusions: 1. It was previously known that Lupus erythematosus might occur in two different forms, either in the shape of characteristic circles—Lupus erythematosus discoides, or in the shape of peculiarly disposed isolated and aggregated patches—Lupus erythematosus discretus et aggregatus. 2. It was also known that the disease had an eminently chronic course, and under such circumstances produced no apparent injurious effect upon the economy.

To these the following new experiences are to be added: 3. Lupus erythematosus may begin and run its course with the appearances of an extensive or universal, acute or subacute, febrile eruption, and by the intensity of its local and general symptoms in such cases be often able to affect the whole system and even to destroy it. 4. L. eryth. discoides runs regularly and continually a chronic course, and generally without any severe complications, although it occasionally is associated with erysipelas, or with the aggregated form and its acute symptoms. 5. L. eryth. aggregatus on the other hand may also have a chronic course, but more frequently either from the beginning or at least during its later progress is accustomed to develope acute eruptions.

As the results of his anatomical researches, he considers the affection as an inflammatory process, which is characterized by its original location about the sebaceous glands and hair follicles, or the sweat glands, and by its termination either in recovery and perfect *restitutio in integrum*, by retrogression of all inflammatory appearances, or by the effects of cicatricial shrinking of the affected tissues produced by fatty and amyloid degeneration of their elements. At the beginning of the process there appear about the glands above mentioned collections of cells under symptoms of inflammation, distention of the vessels, œdema of the cellular tissue of the lower portion of the corium (nodules), and in the superficial layers (red spots), proliferation of the gland cells (seborrhœa), exudation of serum and bloody fluid between the layers of the epidermis (vesicle-formation), and escape of blood into the corium and the papillary portion (hæmorrhage). From the lighter grades of this process complete recovery or restoration is possible. Generally, however, and as it appears, very quickly, there is developed the fatty granulations of the cells of the rete and of the elements produced by the inflammation, as well as a similar or hyaloid degeneration of the fibrous tissue elements of the papillæ, which in consequence are partly reabsorbed, partly shrink. At such place occurs the cicatricial sinking-in of the skin. By means of the same metamorphoses of the glandular elements and of the fibrous tissue surrounding them, is the destruction of the hair follicles, and of the sebaceous and sweat glands accomplished, as well as that of the bloodvessels which were distended at the beginning. The fat lobules also disappear. In this way we arrive at the end of the process, the complete cicatricial atrophy of the affected portions of skin.

Therapeutics.—In his earlier article, Dr. Kohn treats of this portion of the subject at length, and contents himself in this with specifying the few of the many methods of treatment there discussed which have best withstood the experience of the intervening two years. These are the potash soaps, potash solution (1 : 2), tar, and emplastr. hydrargyri. That even these, the most reliable means at hand, fall far short of desirable effectiveness in his estimation, the concluding words of the article, repeated from the earlier one, only too plainly tell us. "Every one of the means and methods there enumerated has shown itself perfectly able to cure Lupus erythematosus; but this applies always in the individual case only, for one which succeeds often time after time will leave us entirely in the lurch in the next case, and be wholly outdone in favorable effects by some other remedy." The object of treatment is to check the process while in the inflammatory stage, and to prevent the occurrence of new eruptions. This succeeds, he says, not infrequently, sometimes in a short time, generally, however, after many months and years of attempts and efforts of the physician and sufferings of the patient. To the truth of this experience all will assent who have had to deal with many cases of the disease.

Spedalskhed (leprosy) and its Hereditability. Boeck. (*Arch. fur Dermat. und Syph.*, Drittes Heft., 1872, from *Nord. Medic. Ark.*, vol. iii.)—During his recent visit to this country Prof. Boeck made a visit to Minnesota, where there is a colony of his countrymen, for the express purpose of studying what effect immigration to a region free from the disease might produce in that terrible leprosy so prevalent in their former home, Norway. He found there 18 persons affected by it; in 9 of whom it appeared only after a residence of a longer or shorter time (in three of them after a residence of 9½, 10, and 14 years). Of the other 9, who brought the disease with them, a portion (6) were more or less worse, 2 showed improvement, and 1 was stationary. It appears to him, therefore, that, as it is impossible to admit so long periods of incubation as those just given, we must refer the occurrence in such immigrants to the effects of inheritance. In these cases, with one exception, its preceding occurrence in side lines of the family could be determined. It is impossible yet to ascertain whether in the descendants born here of leprous immigrants the disease may develope. Prof. Boeck repeats, in this connection, an observation, that persons born of healthy parents, in whose families and homes leprosy never occurs, when they have lived a considerable time in countries where it is endemic, become affected by it, even after returning to regions free from it again.

Influence of the Pigment and Medullary Canal upon the color of the Hair. (*Archiv. f. Derm. und Syph.*, Erstes Heft., 1872.)—In this article Pincus, of Berlin, adds another to his former valuable contributions to our knowledge of the hair and its diseases. It is to his indefatigable investigations, in fact, that we are indebted for the largest part of our positive knowledge of the natural history of the hair and its changes in disease. The results of his latest observations are stated at length in the present article, and his conclusions are given in the following form:—1. If there is any considerable quantity of granular pigment in the peripheral layers of the hair, it is these layers alone which determine the color which the hair presents, and it is of no consequence whether the central layers contain pigment or not, whether they contain much air or not. 2. If the peripheral layers are without pigment, while the central contain it in considerable amount, the hair appears white, notwithstanding the central coloring, as soon as the peripheral layers contain any considerable quantity of air-streaks. 3. If the peripheral layers contain only infiltrated (diffused) pigment, then the central portions take part in producing the color that the hair exhibits, and in some cases may alone determine it. 4. In the rare cases in which the hair, during the second half of its natural growth, deepens in color, this increase is produced by the granular pigment, which, in the beginning of its development only in the more central, with the progress of its growth is developed also in the peripheral layers. 5. In case the hairs of any regions during the growth of a person after puberty (in childhood a more complex law holds) assume a decidedly thicker diameter, as a rule the quantity of deposited pigment does not keep equal pace with the increase in its natural thickness; the hairs therefore become lighter. 6. The variations of coloring in the natural progress of a gray hair are, as a rule, due to the fact that in some parts granular pigment occurs, in others not; infiltrated pigment, in advanced stages of canities, being found even in places still appearing to be colored either not at all or only in the most extreme peripheral layers. 7. In the beginning of canities, the pigment-formation gradually removes from the inner into the peripheral portions alone of the papilla (the main seat of its production). With the progress of the canities a section only of the peripheral layer produces pigment, so that only a narrow streak of pigment exists in the hair, which in straight hairs runs nearly parallel with the longitudinal axis, in curled hair in the form of a spiral. 8. The granular pigment of the living (growing) hair is much more easily acted on by solvents and chemical agents than that of the dead. Conclusions drawn from experiments made by Orfila and myself upon dead hair are to be applied to the living therefore only with caution. 9. Observation of many hairs (of one and the same person) in various stages of their natural development, teaches that the tip of the papilla (which forms the medullary canal) regularly towards the end of the natural development of the hair, and exceptionally also at other times, produces cells of less firm connections and with less firm interstitial substance. In such places the medullary canal contains no air (apparent interruption of the canal). Such modified production on the part of the papilla regularly coincides, according to my observation, with a retardation of the longitudinal growth of the hair. 10. In any considerable number of hairs with strongly pronounced medullary canals, real interruptions of its cavity do occur, which are only to be explained by interruption in the formative activity of the tip of the papilla. This deficiency in the activity of a portion of the matrix, in consequence of the reparative power of the surrounding parts, is not expressed by any defect in the colored portion of the hair. In case the reparation is not complete, the central layers exhibit air-streaks, which decidedly exceed, in their number, breadth, and length, the number and dimensions of those of the peripheral layers. An interruption of the formative activity of the central layers of the papilla also occurs in cases where papillary-hairs without a medullary cavity exist. Where such interruption in the activity of the central layers of the papilla occurs only here and there, and such a hair contains in its peripheral layers only a little granular pigment, marked differences of color arise along its length.

Loss of Hair and its connection with premature Canities (*Jahresbericht der Gesammten Medicin*, 1872, from *Deutsche Klinik*).—Pincus, in the article here referred to, draws a sharp dividing line between alopecia and defluvium and canities prematura. The former he regards as an independent affection of the hair and not as the result of any preëxisting disease of the cutis. Alopecia simplex is the name he applies to the condition which begins in healthy persons between the 18th and 35th year, and gradually within five to fifteen years makes the head more or less bald. All regions of the scalp are not affected at once, and all the hairs of any affected district do not fall simultaneously. They first fail to attain their typical length, afterwards their normal diameter also. In canities præmatura a smaller portion of the scalp is affected, and all the hairs of the affected region rapidly fail in length and thickness.

According to his investigations, alopecia of middle and more advanced age is not, as is generally believed, the result of atrophy of the cutis. If a portion of the scalp is cut out during its first stage, there will be found a thickening of tissue at the boundary of the cutis and fat, an increase and thickening of the fibres between the fatty tissue, and a change of their vertical direction to one horizontal to the cutis. A slight scaliness is observed at this stage, the scales being derived mainly from the glandulæ sebaceæ, an altered secretion. In the later stage the hairs become thin and fall. Microscopical examination in this stage shows that we have not to do with an atrophy, but with an induration, which he calls induratio telæ cellulosæ.

Phosphorus in the Treatment of Skin Diseases.—Eames gives in the *Dublin Quarterly*, No. 1, 1872, the report of a series of cases in which he employed phosphorus internally. He dissolves ten grains in an ounce of olive oil, and gives of this three times daily from five to ten drops, or a tenth, a twentieth, or a thirtieth of a grain in capsules. The affections in which it seemed to be of greatest service were acne, lupus and psoriasis. Dyspepsia and general depression were constantly observed during its use, and, with many, a pleasant feeling of increased warmth after each dose. No exciting effect was noticed upon the genital nerves. The urine was sometimes increased, as well as the perspiration, but there was never diarrhœa.

Other writers speak in praise of its action in the above and other diseases of the skin, but the observations are as yet too few and too loosely conducted for the formation of an opinion as to its real or comparative merits as a remedy.*

Hydatid Cysts of the Heart.—Dr. L. de Welling has just prepared a monograph on this subject (*Le Mouvement Medical*, Sept., 1872). The affection is a rare one, and the symptoms accompanying it are so obscure that it cannot be prognosticated during life. A careful research has enabled the writer to find but thirty instances on record. Any portion of the heart may become the seat of one of these cysts. M. Welling has studied the pathological anatomy of the disease, as well as the different forms which the affected organ may acquire. One singular circumstance in this connection is that when the tumor projects beyond the walls of the heart, adhesions are found between it and the pericardium, so that a firm obstacle is presented to the rupture of the cyst. Cysts having their seat in the ventricles are rarely ruptured, whereas those situated in the auricles are ruptured frequently and are much more dangerous to life, death being, as a rule, certain. In some instances, dyspnœa and palpitation have been produced, but in a great majority of cases, hydatid cysts of the heart do not give rise to any marked symptom.

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* Writers of papers on Dermatology will contribute much assistance in the preparation of the semi-annual reports in this department if they will forward copies of their papers, addressed to this Journal.—Eds.

Reports of Medical Societies.

BOSTON SOCIETY FOR MEDICAL IMPROVEMENT.
F. B. GREENOUGH, M.D., SECRETARY.

Oct. 7th.—*Two Cases of Aneurism of the Heart.* Cases reported and specimens shown by Dr. S. L. Abbot.

J. B., 44, born in France, a jeweller by profession, entered the Massachusetts General Hospital for symptoms from which he had been suffering for sixteen months, and which he attributed to the free use of nitric and hydrochloric acids in his daily vocation. The first symptom noticed was a swelling of the abdomen, which had increased to a marked ascites at the time of entering the hospital. A short time before entrance, considerable œdema of the lower extremities had appeared; two months previously, there was some yellowness of the skin. The patient had continued to work until within two weeks, during which he had been obliged to pass much of his time in bed on account of debility and dyspnœa; decubitus on the right side was impossible. His appetite was moderate, and food at times oppressed him. Bowels constipated. Pulse 72, of good strength.

Auscultation on the 27th showed, on a level with the left nipple, the second sound of the heart redoubled; about mid-sternum, the first sound clear, at times a little prolonged, and the second redoubled. No cardiac murmur. Urine examined on the 30th; in no way remarkable.

The patient remained in the hospital until his death on April 6th. His suffering was very great most of the time, from dyspnœa, vomiting and dropsical distention. He once vomited a little blood. He had pain at times in the region of the liver (which organ could not be felt at any time through the abdominal walls), and very often in the abdomen. Vomiting was a very frequent and distressing symptom. At about the middle of March, he had a loose cough, with abundant moist râles in the right back, and some obscure râles in the left; but no abnormal cardiac sounds were noticed in the back. Paracentesis abdominis was done on the 1st of April, and twelve pints of clear serum, somewhat colored by bile, were drawn off.

On the 5th, a patch of purpura, six to eight inches in length, was noticed on the upper and outer aspect of the right thigh. The patient vomited very frequently, and died on the morning of the sixth.

The treatment employed was palliative, to meet the indications of the symptoms from day to day. The patient was under the care of Dr. Shattuck until the 1st of March, afterwards of the reporter. The case was regarded before death as one of hepatic disease, probably cirrhosis, and there was not the slightest suspicion of the extraordinary disease of the heart revealed at the autopsy. This was made by Dr. Fitz, the Pathologist of the Hospital, and the following report of the morbid condition of the heart is taken from his notes.

"On removal of the sternum the pericardium was found to extend into the left mammary and upper hypochondriac regions, pushing the lower lobe of the left lung backwards and upwards, the inner surface of the same being adherent to the opposed outer surface of the pericardial sack.

"The parietal and visceral pericardial surfaces were intimately adherent by means of old, firmly organized, fibrous tissue.

"The heart was somewhat hypertrophied and dilated, the muscular substance firm; the valves of both ventricles apparently normal. In the right ventricle, towards the posterior wall, at the angle formed by the interventricular septum, the muscular substance was converted into a dense, white, fibrous tissue. In immediate connection with the left ventricle was a sack nearly as large as the heart itself, and so intimately connected with it, that a bordering line could not be made out. Its walls were a quarter of an inch thick, the inner surface presenting several thin, laminated, variously decolorized coagula, beneath which were occasional, more or less hemispherical, somewhat irregular, elevated masses, apparently degenerated coagulated fibrine. The cavity of the sack was filled with freshly coagulated blood, and communicated freely with the left ventricle by means of two circular openings with sharp edges, large enough to admit the forefinger, and situated on either side of the hypertrophied and somewhat fibrous papillary muscle of the mitral valve. The wall of the left ventricle surrounding these openings was thinned, white and firm, its appearance suggesting that of the central tendon of the diaphragm."

Dr J. B. S. Jackson said that in similar cases of aneurism in the walls of the heart, that had been previously reported to the society, the absence of any marked physical signs during life had been noticed.

II. M. S., æt. 39. Widow. Fayal. Entered the Mass. General Hospital, June 3d, 1872, having been but one month in

America. She was suffering from a cough which she had had since January, accompanied, at the time of entrance, by very little expectoration; for ten days there had been moderate ascites and œdema of the legs. There was some dyspnœa and general pain, disturbing sleep. Anorexia, thirst, constipation. Tongue moist, slightly coated, skin natural to the touch. Catamenia present. Pulse, 116. Respiration, 33. Temperature, 98°. The patient had had rheumatism seven years previously.

Auscultation on the 4th. Sounds of heart generally indistinct, of a rumbling character, much obscured by noisy breathing. Second sound distinct at base, but feeble. A systolic souffle heard along the arch of the aorta.

Percussion dull over the lowest third of both backs, quite dull at base, with abundant coarse crepitus, most abundant at the base.

The abdominal walls were loaded with fat. Some doubtful fluctuation could be detected in the abdomen; there was considerable œdema of the legs.

On the 7th the urine was high colored and acid; specific gravity 1114. Albumen was present in moderate quantity, but there were no casts. The patient died at 6, A.M.

The patient's imperfect knowledge of English made it very difficult to understand her complaints, but she seemed to suffer much from pain in the abdomen, back and lower extremities, with occasional dyspnœa. The treatment was palliative.

Autopsy by Dr. Fitz. "Lungs in a state of brown induration, with œdema.

"Heart. In the pericardium were some three ounces of clear, yellow fluid. Heart very much larger than usual, the increase in size being due mainly to dilatation and moderate hypertrophy of the ventricles. At the junction of one of the aortic valves and behind it a pouch extended into the interventricular septum large enough to readily admit the tip of the thumb. The muscular tissue beneath the attachment of the valves was fibrous in spots. The mitral and tricuspid valves readily admitted three fingers. The wall of the left auricle was smooth, white and opaque. In the right auricular appendage, two globular, somewhat œdematous, mottled gray, apparently ante-mortem thrombi were seen. Right auricle hypertrophied.

"Kidneys large, capsule attached with unusual care. Cortex somewhat increased in volume, pale, and of a dirty yellow. Malpighian corpuscles indistinct. Under the microscope numerous moderately fatty convoluted tubes were seen."

Dr. Ellis said that the heart was probably slightly fatty. Part of the lung showed brown induration. During life, flatness on percussion, and subcrepitant râles had been noticed. Brown atrophy as far as microscopic appearances go, resembles fatty degeneration, but in the former there is an induration of the tissues, instead of a softening, as is the case in the latter.

Dr. Warren said that in brown induration of the lungs, the air-cells were decreased in size, owing to the dilatation of the bloodvessels around them. The lung substance felt crepitant.

Dr. S. A. Green, in answer to a question, stated that he did not believe that the contagion of smallpox was very virulent in the open air, and that he felt quite sure that no case had been caught from the small-pox hospital or ambulance. He did not think that contagion could be carried more than a hundred feet in the open air. Where a patient had been removed in the first two days of the eruption in no instance had a second case followed in the same house.

Dr. Tyler, reported the case of a patient confined in the McLean Asylum with dementia, who was kept entirely by himself, and yet he broke out with confluent smallpox, which terminated fatally. The only possible means of contagion that he could think of, was that perhaps the disease might have been brought by flies from East Cambridge, where it was quite prevalent.

Dr. Jackson had thought it generally admitted that smallpox was contagious, even before the appearance of the eruption.

Dr. Green did not think so. He had noticed that the hæmorrhagic form was quite prevalent in the present epidemic, and very fatal; also that women of the proper age, were very apt to menstruate during the primary fever. A very great difference in the chances of the disease spreading in a house is made by the fact of the patients being up or down stairs, as the contagion seems more apt to rise than descend. With regard to the protective power of vaccination, he had seen instances, where a child, who by some chance had not been vaccinated, was the only one out of the family who had the disease. In a general way with regard to revaccination, he said that he thought every body should be vaccinated during the first three months of his life, again after puberty, and if the latter was successful, he should not revaccinate again unless there were some special reason for doing so, such as exposure to contagion or the exsitence of an epidemic

Medical and Surgical Journal.

Boston: Thursday, December 12, 1872.

THE INTRODUCTORIES.

The British journals for October contain abstracts of the introductory addresses delivered at the opening of the various medical schools, and also editorials suggested by the occasion and by the views which the different lecturers advanced. One of the journals, in a review of the address delivered by Mr. Christopher Heath at University College Hospital, thus condemns *in toto* the entire system of introductories. "While the general mass of introductories are useless," says the *British Medical Journal*, Oct. 12, "some are also mischievous. The 1st of October is occasionally used as an occasion for airing crotchets as well as platitudes, and an introductory lecturer finds sometimes the opportunity of being dogmatic as well as dreary."

To a certain extent, it is probable that some of the lecturers may be open to this charge, but we question whether the "crotchets" and "platitudes" may not be more truthfully styled the firm convictions to which the different speakers have arrived as the result of observation and experience, and which necessarily in the case of each one will be somewhat peculiarly his own. That some of these conclusions are wrong we may not deny, but the cause of truth will not be advanced, nor will the advocates of error be convinced by ridicule or wholesale condemnation. From among the sayings of so many of the leading medical teachers of England there must be some which will attract our attention, if they do not meet with our approval.

We select a few of the views advanced by some of the lecturers.

At Guy's, Dr. Pye-Smith spoke of preventive medicine, and then passed to consider curative medicine. He implies by curing, "taking care" of the sufferer. He goes on to say: "We cannot originate the least step in the healing process. We can only guide and direct the action of those physical laws which produce the phenomena of life." The *Med. Times and Gazette* objects to the limitation of curative medicine to "taking care" of the patient. "The administration of quinine in ague, which cures the disease, is not mere taking care of the patient, nor is application of aconite for the relief of neuralgia, nor the administration of arsenic in skin disease, nor a thousand other curative proceedings, which certainly transcend any ordinary meaning of the word 'take care.'"

Prof. Bracey, in his address at Birmingham, among other things, urged upon advanced students the importance of keeping up their knowledge of the preliminary sciences, particularly anatomy; for ignorance of this branch led to bad surgery; and whilst the physician's blunders might be obligingly hidden away by the sexton, and decently covered by the churchyard turf, those of the surgeon had an awkward trick of hobbling about, to his great discomfort and eternal confusion. He also referred to some of the difficulties one meets with in satisfying the inquiries of patients and their friends as to the nature of their troubles: "Some persons enjoying the dignity of suffering from a complaint with a portentous name, and others manifesting the opposite feeling."

At the London Hospital, Mr. Hutchinson maintained that there was no calling which tended more to the moral and mental development than that of which they as medical students had made choice. In opposition to the rather prevalent opinion that the study of physical laws is inimical to the growth of the higher moral faculties, such as reverence and faith, he held that it had in reality the opposite effect. He denied that the insight into things as they are, can possibly be prejudicial to our confidence and trust in things as they will be.

At the Middlesex Hospital, Dr. Thorowgood claimed that the public owed much to the physician for the health of the community in tracing out the causes and modes of propagation of many serious diseases. Proper treatment of disease with a view of preserving life is what all are striving for, but until of late years the tendency had been to begin, as it were, at the end—to make the arch of the bridge before the foundations had been laid. The man who, ignorant of the processes and effects of disease, laid claim to being great at active treatment, was a sad hindrance to therapeutic progress. He treated true inflammation of the brain and *delirium tremens* in the same way, because he saw some similarity of symptoms. Such were the class of therapeutists who clung to such phrases as "*In summis morbis summa remedia,*" and "*Melius anceps quam nullum remedium,*" while the words "*Abstine si methodum nescis*" would be rather the expression of the practice of men well versed in disease, and in its frequent tendency to get well if not unduly interfered with by treatment. The men of note and repute 200 years ago, like Sydenham and Radcliffe, were said by keen observers to get their success by allowing nature to help herself, and not by being so very active with the lancet and physic.

A SUGGESTION FOR THE AMERICAN MEDICAL ASSOCIATION.—If the leading spirits in the American Medical Association wish an example of a truly *scientific* and *valuable* National Association, and of the kind of professional work which alone will command the respect and enlist the sympathy of medical men throughout the country, we commend to them a perusal of the first pages of the *American Journal of Insanity* for October, containing the proceedings of the Association of Medical Superintendents of American Institutions for the Insane. But ten pages are devoted to the necessary business of the Association, and a hundred and twenty to very interesting and readable discussions on legitimate scientific topics. The editor of the *Chicago Medical Examiner*, in his "examination of the various propositions for improving the organization and working power of the [American Medical] Association," will please note.

AN ENGLISH PRACTITIONER says he has been vaccinated 477 times! It is his practice to vaccinate himself whenever he meets with a person who objects, in order to show its safety.

From British Journals.

THE SAFEST PLACE IN A THUNDER STORM.—James R. Lane, F.R.C.S. (*British Med. Journal*, Aug. 3, 1872), in a clinical lecture on Injuries from Lightning, gives the following directions as to the safest course to pursue when one is overtaken by a storm of thunder and lightning:—

There is no doubt that the safest place for shelter is in the interior of a dwelling-house or other enclosed building, at a distance from window and street-doors; and in a cellar, perhaps, for choice. Not only is the chance of being struck infinitely less, but the risk of serious injury is also much diminished. According to Dr. Sestier, the proportion of fatal cases occurring within houses is not more than one-fifth of the persons struck, and of these the greater number were standing near a window or on a door-step; whereas in exposed situations in the open country, three-fourths of the cases are fatal.

There is no doubt, also, that the popular notion that it is imprudent to take shelter under a tree, is well founded, especially if the tree be an isolated one. A low tree, or a hedge with several high trees in its proximity is less objectionable, as the lightning will generally be attracted by preference to the most prominent objects. Trees standing together in a wood are seldom struck; the electric cloud, coming within the attraction of a mass of trees, probably discharges itself insensibly through the innumerable points of foliage. A wood, therefore, is not an unsafe place, though even there it may be well to keep away from a tree which is higher than its neighbors. Many persons have been killed while standing under a hay or corn rick; these, therefore, should be avoided. From their dryness they are worse conductors than the human body, so that the current passes from them to the latter, as the readiest channel by which it can reach the ground.

But if it is unsafe to stand under a tree or a haystack, is it safe to remain in the middle of a large open space? This is a doubtful question; for a man in an erect position, though less prominent than a tree, still offers a dangerous point of attraction when no other object is near, and if struck, the whole force of the stroke will pass through the body, entering probably by his head; whereas, under the tree, the current is likely to be divided and split up, so that though the chance of being struck may perhaps be greater, the risk of fatal injury is considerably less. According to M. Sestier's statistics, of those struck in exposed situations in the open country, three-fourths are killed; under a stack of hay or corn, two-thirds; under a tree, one-half; under a hedge, one-third; within houses, only one-fifth.

It seems to be pretty generally argued that the safest plan, supposing shelter within a house to be unattainable, is to remain in the vicinity of some prominent object, such as a tree, but on the side opposite to that from which the storm is proceeding, and at a distance sufficient (say twenty or thirty yards), to avoid the risk of the electricity being attracted from the tree to the person.

Under any circumstances the recumbent is undoubtedly safer than the erect position, elevated and prominent situations being of course, carefully avoided. It would be better, for instance, to lie down in a furrow than on a ridge. Additional security may also be obtained by depositing watch and chain, money, or other metallic substances which attract electricity, at a safe distance.

By pursuing the course suggested one is certain to get wet through. While under a tree he runs only a remote chance of being struck by lightning. Wet clothes, however, are not without a compensating advantage; they are all the better conductors of electricity; and if they do not convey to the ground the whole of the current, they would transmit a much larger portion of it than if they were dry, so that there would be less risk of serious personal injury.

Second Attacks of Smallpox in the same Person.—Dr. Bakewell, health-officer of Trinidad, says, "Many persons who had had smallpox before, had a second attack; many re-vaccinated persons (the writer among the number) were attacked; and in two cases that were under my own care, and in one of which I had the particulars from a medical man, patients had the disease twice in six months." (*Med. Times and Gaz.*, Nov. 2, 1872.)

Ingrowing Nail.—Dr. Blower, of Liverpool (*British Medical Journal*, Sept. 21, 1872), has for the past twenty years employed compressed sponge successfully in the treatment of ingrowing nails. He renders the sponge compact by wetting and then tying it tightly until it is thoroughly dry. A bit of the sponge, in size less than a grain of rice, is placed under the nail and secured by strips of adhesive plaster. In this way the point of the nail is kept up from the toe until the surrounding soft parts are restored to their normal condition by appropriate means.

Caffeine.—Dr. H. S. Purdon (*The Doctor*, Nov. 1) has been lately trying the hypodermic injection of caffeine in neuralgia from both functional and organic causes. Amongst his patients at the Belfast General Hospital, was a case of "central neuralgia," and which had resisted all plans of treatment. Under the daily hypodermic use of caffeine, commenced in half-grain doses, increased to one grain dissolved in tepid water, the most satisfactory results were obtained. Caffeine is superior to morphia in never producing any sickness, which is so common when morphia is used hypodermically in any large dose.

Midwifery Notes from British Kaffraria, South Africa. By Dr. C. J. Egan (*Medical Times and Gazette*, October 12, 1872). From these we abstract the following:—The cases which Dr. E. has seen, have occurred among natives who have been brought somewhat under the influence of civilization, They are all cases of difficult or tedious labor, requiring professional assistance.

About twelve hours is considered to be natural labor in a primipara, and many last for a much longer period. Amongst multiparæ labor is much shorter in some cases, lasting not more than an hour, or even half an hour; but these are very exceptional. They recover from the effects of labor much quicker than Europeans do, some who have required operative interference having been seen standing up and walking about half an hour after delivery.

The obstetric position adopted by the natives is sitting with the heels drawn up to the buttocks, while the shoulders are generally supported against one of the poles which support the roof of the hut, or against some of the female friends, who are generally present in full force. Of course, in this position, no pressure can be made upon the perinæum by the hand of the attendant, but the writer thinks the perinæum is protected by its resting on the firm floor of the hut, and that the too sudden passage of the child's head is thus prevented.

The pelves, it is thought, are not larger than those met with in Europeans, but they are certainly more largely enveloped in their fleshy cover. The head of the child is usually smaller than is met with in Europeans.

There are two different methods of treating the funis. In some cases they do not cut it till the placenta has been expelled. Dr. E. has been called to a case of twins three hours after the birth of the first child—the second lying across and requiring to be turned; and when he arrived the first was lying on the floor, still attached by the funis, in which all circulation had ceased, the child being alive and well.

The second method is to cut the funis across with a rough reed—in fact to saw it slowly across, making a ragged end to it, as if it was torn—and thus effectually prevent hæmorrhage.

Flooding is a very unusual occurrence, and the writer has never been called in to see or to prescribe for a case of the kind.

Among the native infants, one is much struck with the numerous cases of umbilical hernia. Little Kaffirs, from a year to four or five years of age, are to be met with running about quite naked, with large protrusions at the navel—sometimes the size of a hen's egg. Yet these herniæ seem always to disappear without any remedial measures being adopted. Though often seen in children, it has not been met with in adults.

It originates, probably, from their never using a binder on the infant when first born; and it appears to be removed naturally on the development of the abdominal muscles when the child begins to run about. It shows that the occurrence of such herniæ among European children need not be a cause of so much anxiety as it usually is. It will most likely cure itself if left alone.

Correspondence.

Messrs. Editors: I take the liberty of requesting permission for the insertion of the following extract from the Secretary's report of the last meeting of the Suffolk District Society.

Very truly yours,
R. H. Fitz.

In answer to Dr. Hodges with regard to the anatomical alterations in the hæmorrhagic forms of variola and to Dr. Wheeler with regard to the possibility of two distinct diseases being in question, Dr. Fitz stated that he had recently made an autopsy in such a case, where death had occurred within 36 hours, and had found conditions differing from those observed in ordinary cases of variola:

Hæmorrhages in the skin, the papular eruption being absent, subcutaneous and subserous fat tissue, also in the submucous tissues of the stomach and renal calyces. In the lungs extensive hæmorrhages had taken place both diffuse and circumscribed, the latter in the form of nodular masses, the cut surface of one of which was as large as that of the palm of the hand.

Still more remarkable was the condition of the spleen, liver and kidneys, which, slightly larger than usual, possessed an enormously increased density. The color of the spleen a dark red, its pulp increased in volume. The liver anæmic; acini easily recognized, with a slight waxy lustre on section. The kidneys smooth, gray and anæmic, also a tolerably uniform opaque white appearance of the cortex. The autopsy was performed some 6 hours after death, and notwithstanding the body was packed in ice, its temperature was remarkably high.

Attention was called to the observations of Dr. Ponfich recently made in Berlin, with regard to cases of hæmorrhagic variola. In general, similar results to those mentioned had been obtained. Dr. Ponfich called attention to the comparative immunity from hæmorrhage of the small intestine, though elsewhere in the intestinal canal from mouth to anus such was common. Less regular was its occurrence, in the Fallopian tubes, uterus and vagina, ovarian tissues, brain and its membranes. Upon all the mucous membranes mentioned a diphtheritic process frequently accompanies the hæmorrhagic infiltration. He states that the larger bile-ducts and gall bladder contain dark viscid bile, whereas in pustular variola, a grayish, yellow, thin, often serous-like fluid is found.

In general the granular degeneration of the parenchyma of the various organs occurring in the pustular varieties is wanting in the hæmorrhagic form. Dr. Ponfich says that the question may well be asked if these two forms are not different diseases, since the anatomical appearances and chemical features are so different. Dr. Fitz had seen a case, however, where within the first 24 hours, papules being absent, multiple cutaneous hæmorrhages were present, especially in the lower abdominal and lumbar regions, also epistaxis; later a confluent pustular eruption made its appearance on the face.

Medical Miscellany.

AMERICAN MEDICAL ASSOCIATION.—The Transactions of the Association for the past year have been issued by the Permanent Secretary.

POST-MORTEM PARTURITION is not only possible, but, according to cases cited in the *Medical Press*, Oct. 9th, has been repeatedly noticed.

DR. JOHN M. CURRIER, of Barnet, has been appointed Surgeon-General of the State of Vermont, with the rank of Brigadier-General.

ARCHIVES OF SCIENTIFIC AND PRACTICAL MEDICINE.—We took occasion in the last number to refer to the publication of a new journal in New York.

Dr. Brown-Séquard proposes soon to begin, with the assistance of Dr. E. C. Seguin, and several New York, Boston and Philadelphia physicians and surgeons, the publication of a Medical Journal, under the above title. The original papers in this periodical will form the largest part of every number, and will treat successively of the most various subjects belonging to all the branches of the medical sciences. Although scientific, this journal will be essentially practical, especially in giving, besides purely practical papers, scientific communications having for their object applications of science to practice.

This journal will appear on the first day of every month, each number consisting of about one hundred pages, 8vo, in somewhat small type.

In addition to the usual material found in a professional journal, we are promised a report on the result of experimental researches made in Dr. Brown-Séquard's Laboratory, by himself, by his assistant Mr. Dupuy, or by his pupils.

TENNESSEE OPIUM.—The *Nashville Journal of Medicine and Surgery*, Oct., 1872, contains the following :—

Considerable interest has been manifested, during the last few years, in the cultivation of the poppy for opium, near Nashville. A small quantity of the imported seed of the white poppy was planted by Dr. Pitts, in the spring of 1871, and the seed thus obtained used exclusively this year, with very fine success, the plant being larger and more vigorous, and the capsules from two to ten times as large as those from the imported seed.

A sample of the opium, prepared this summer, was found to possess the peculiar narcotic odor and bitter taste, and presents a smooth, tenacious mass, of a dark brown color. One hundred grains, when dried, yielded eighty-three of powder, and, upon examination, eleven of insoluble matter, mostly clay and sand, and ten of alkaloids, equal to about nine grains of morphia.

M. LOUIS.—The following expression of respect for the memory of Louis was unanimously adopted by the Medical Observation Society of Boston at its meeting, Nov. 18th ult. :—

The members of the Boston Society for Medical Observation, in entering upon their record the death of M. Louis, desire to express their profound respect and admiration for his life and labors which have done so much for the advancement of medical science.

They recognize in the teachings of M. Louis the ideas which gave birth to this Society, formed upon the model of the Société d'Observation Médicale, of Paris, which counts among its members some of M. Louis's earliest followers.

They desire to express to the family of M. Louis their profound sympathy for the bereavement which it has sustained.

ERRATUM.—Page 396, JOURNAL of Dec. 5, after the word "seen" in line 21, insert *reports*.

PAMPHLETS RECEIVED.—What Physiological Value has Phosphorus as an Organismal Element? An Essay to which was awarded the Prize of the American Medical Association for the year 1872. By Samuel R. Percy, M.D., &c. Philadelphia. 1872. Pp. 56.—Vegetable Organisms as Causes of Disease. By Dr. F. Steudener. Translated from the German by Conrad Georg, M.D., Ann Arbor, Mich. 1872. Pp. 41.—Medical Responsibility and Malpractice: An Address delivered at Albany before the Medical Society of the State of New York, February 7, 1872. By Wm. C. Wey, M.D. Albany. 1872. Pp. 35.—Puncture of the Bladder by Dienlafoy's Aspirator, with a description of the Instrument. By James L. Little, M.D., &c. New York: Appleton & Co. 1872. Pp. 12.

Deaths in sixteen Cities and Towns of Massachusetts, for the week ending Nov. 30, 1872.

Cities and Towns.	*No. of Deaths.*
Boston	176
Charlestown	22
Worcester	13
Lowell	15
Milford	2
Chelsea	7
Cambridge	10
Salem	8
Springfield	8
Lynn	14
Gloucester	4
Fitchburg	5
Taunton	9
Newburyport	7
Somerville	2
Haverhill	3
	305

Prevalent Diseases.

Smallpox	64
Consumption	44
Pneumonia	22
Typhoid Fever	11

The deaths from smallpox were as follows:—fifty-three in Boston, six in Charlestown, two in Chelsea, two in Cambridge, and one in Newburyport.

GEORGE DERBY, M.D.,
Secretary of State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, December 7th, 147. Males, 82; females, 65. Accident, 3—apoplexy, 5—asthma, 1—atelectasis pulmonum, 1—disease of the bladder, 1—bronchitis, 1—inflammation of the brain, 1—disease of the brain, 5—cancer, 1—consumption, 17—convulsions, 2—dyspepsia, 2—debility, 4—diarrhœa, 2—drowned, 1—epilepsy, 1—scarlet fever, 15—typhoid fever, 2—gangrene, 2—disease of the heart, 2—hæmorrhage, 1—insanity, 1—intemperance, 2—disease of the liver, 1—congestion of the lungs, 3—inflammation of the lungs, 9—marasmus, 1—old age, 6—paralysis, 1—pleurisy, 1—premature birth, 2—purpura, 1—puerperal disease, 1—scrofula, 1—smallpox, 41—stricture, 1—unknown, 5.

Under 5 years of age, 47—between 5 and 20 years, 18—between 20 and 40 years, 46—between 40 and 60 years, 13—above 60 years, 23. Born in the United States, 99—Ireland, 32—other places, 16.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

NEW SERIES.] THURSDAY, DECEMBER 19, 1872. [VOL. X.—NO. 25.

Original Communications.

ABDOMINAL DISEASES AS OBSERVED DURING THE SUMMER OF 1870.

A Paper read before the Dorchester Medical Club, October 17th, 1872,

By HENRY BLANCHARD, M.D. Harv.*

THAT part of Dorchester known as Neponset and Port-Norfolk, although abounding in what one would naturally regard as material for summer complaint in its various forms, has been unusually free from any prevailing sickness, especially of a severe type, during the summer now past. Bowel complaint of children, although somewhat prevalent, has been of a mild character and mostly manageable with little medication and the usual dietetic care. No case of severe cholera infantum has come under my notice. Most of the cases I have seen have been of non-nursing infants, and such as were in process of dentition.

A few cases of dysentery have occurred, all of a mild character and readily yielding to treatment. A few cases of cholera morbus have been encountered, recovering under the usual care. One case has been met with which, had cholera prevailed among us, would readily have found its classification with that disease. The case was fatal.

On the whole, so far as relates to abdominal diseases of the season, little has been experienced by me worthy of note, and consequently nothing especially new in the way of treatment has been called in requisition. I will proceed with some remarks suggested by hints derived from observation and sources open to every physician in his daily rounds who is careful to see and listen.

With children suffering from disturbed bowels, my general custom has been to nourish as far as practicable—no matter how young the patient—and to give nutriment in as condensed a form as possible.

I have many times noticed, in the past as in other seasons, among the Irish, little dirty patients with a newly-baked biscuit, a cracker, a cold potato, an apple, a raw turnip, or, as in one instance, a raw cabbage leaf in hand which was being nibbled at will. Remonstrance in these cases seems to be in vain. I never can succeed with this class of patients in establishing any special judicious plan of diet. If the offensive article is removed for the moment, I fancy the noisy protest of the sufferer causes its restoration soon after the doctor's exit. Now among the Irish I have not seen a fatal case of bowel disease the past season; while the single death from the disease was in a family where the most careful nursing was had—the food arranged with the utmost exactness—everything contraband excluded.

It is sometimes not a little difficult to resist popular notions in a sick room; as, for instance, in the matter of allowing a plentiful supply of cold water. We all have seen how common it is to ascribe any paroxysm of pain, any vomiting, or any increased tormina of the bowels to the cold water, should any of these things happen to follow its administration in however small quantity. So also in the indulgence of fruits.

It is my practice, usually, to allow children in their summer sickness, when suffering from thirst, as they are apt to do, a supply of cold water; of course, using discretion as to quantity, state of stomach, &c., making it sometimes, too, the medium of such medicines as are appropriate, but which, in a less diluted form, would be repelled on account of taste. But cold water *alone* and in full supply has been often attended with the happiest consequences. I will refer to a case I had three or four years ago. This little child, between 2 and

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* This Paper was prepared to be read before the Norfolk District Medical Society in the autumn of 1870, but owing to unavoidable causes was not then read.

3 years of age, had been sick for many days with severe bowel complaint, accompanied with almost constant vomiting. No food, no liquid, so far as tried, would remain in the stomach. A teaspoon of water or any other liquid was as soon vomited as swallowed; and yet the thirst was tormenting. Emaciation was fast going on; the dangers of death seemed imminent. I determined to try the experiment of letting the little patient have her fill of pure cold water. I thought it could not make matters much worse. A large pitcher full was called for, a good sized goblet filled and presented to the child, which was all swallowed with simply stopping once to rest and breathe. Another goblet was filled after a little delay, which was also drunk with great relish, the little patient only stopping once to rest and breathe. Then another was offered, which was seized with less eagerness; and after swallowing about half of it she looked up with what seemed a satisfied and grateful expression, put out her little hand and pushed back the glass as it was again offered to her, lay down in its mother's lap, soon fell into a quiet sleep, followed by gentle warmth and perspiration; had no more vomiting, and was immediately afterward convalescent, requiring little further medical care.

I leave it for others to explain why this little child, whose stomach was in such a state of irritation that it could not retain a single teaspoon of any liquid, not even water, could yet drink, with only an occasional stop to breathe, within the space of five to ten minutes, nearly a pint and a half and yet retain it all. I do not mean that this treatment can always be so successfully and safely pursued in cases of bowel complaint, when vomiting is so persistent and thirst so urgent. But I believe that, by carefully watching children in this disease, and by careful discrimination, we may often hit upon the very article they most need, and, by giving it, do a great deal toward a successful issue. In any case of a similar kind as related, I should repeat the experiment, trusting that, though the gentle stream but increased the flame, the flowing torrent might extinguish it.

In some cases of bowel complaint, I have found cold water, or a weak solution of soda in water, the only substance that the stomach would bear. When this condition obtains in the early stage, while the strength of the child is good, and as yet there is little or no emaciation, I have allowed it thus to be treated—absolutely nothing else being administered for more than one week, when the stomach has become quiet and capable of retaining and digesting the food.

As illustrating the advantage of patiently watching children with a view to learn their wants, a case may be stated in which I accidentally discovered a longing for sugar. A little had been dropped into the mouth after something unpalatable had been given. I saw that it was sucked down with avidity—an appealing look cast up for more. The difficulty here had been, as so often happens, to keep anything down. I at once had a quantity of loaf sugar cut into small bits, and the child fed with them. As fast as one was dissolved, it was replaced by another. From one to two ounces was thus taken in a day, with great zest, which, with a teaspoon of water occasionally, was all that was used for several days; when tiring of the sweet, it was found that other articles could be tolerated which before had been entirely rejected.

At the risk of being somewhat tedious, I wish to give other instances illustrating that craving for something which the mute sufferer cannot indicate and which it too often, I believe, fails to obtain. A child, after a lingering bowel complaint with teething, seemed far gone, and the stomach rejected everything offered. The case seemed hopeless. I had known raw beef recommended in some forms of bowel complaint. I determined to try it, and it was soon procured, scraped into pulp, salted and given, at first, in small quantity. It was soon apparent that the child had found what it was craving; it was sucked down with all the eagerness it was capable of manifesting, and for nearly two weeks the child took almost nothing else. Convalescence was then so far established, that a successful return was made to the ordinary articles of food.

A very remarkable and, as it proved, a very interesting case was that of a child, about 2 years old, who was brought home to my neighborhood from Alexandria, D. C., where, with its mother, it had been on a visit of several months. It had contracted diarrhœa of a bilious type, and had had, as the mother said, the chills. It had been long sick, and, notwithstanding the unfavorable opinion of its physician, the mother decided on returning with it to her home. On visiting it, I think I found the most emaciated specimen of humanity that I ever saw that was afterward restored to health. With diarrhœa, and vomiting of every kind of nourishment offered, it seemed a case hopeless of relief. Rather as an experiment than with an expectation of success, I directed a trial of brandy, milk, water and sugar, made as strong of brandy as could be swallowed. Much to my gratification, the child manifested a decided relish for it, and did not reject it. It was diligently persevered with, and the longer it was used the more it was craved, and the better enjoyed. Soon, a gain of vigor was perceptible in the child. Suffice it to say, this was substantially the whole nourishment used until it had consumed three gallons of the spirit. At the end of from six to eight weeks, so vigorous had it become, that it was deemed expedient to wean it from its stimulant, and to substitute some other and safer form of nourishment. So strong had the love of brandy become that this was found no slight task. The little fellow, as he began toddling about on his feet, was for a long time earnestly calling for "bandy, bandy." After months, however, he was apparently weaned from it. But whether the seed is sowed thus early, to spring up and develope in after life, into a fatal indulgence, may afford a subject for serious reflection. The child, now 3 years of age, is living in North Carolina, and is, as I am informed, a rugged and healthy boy. It is to be hoped he has not been snatched from death in the days of his innocence, to be a victim of a terrible appetite in his maturer years.

As further illustrating the whimsical cravings of children, I will mention a case just now recovering from a bowel complaint of about five weeks' standing. The child, something over a year old, one month ago, and before being weaned, commenced with a watery discharge from the bowels, and vomiting. The mother, suspecting for a certain reason that her milk was disagreeing with her child, had it taken from the breast. It had been accustomed to being fed from the table at times ; weaning, however, seemed not to have the effect of curing it ; the disturbance of the bowels continued somewhat aggravated. The stomach remained irritable. It persisted in rejecting all the various liquids we are accustomed to prepare for similar cases, and became much emaciated. Having found nothing that seemed to meet the demands of the stomach, I directed that the child should be carried to the table at the family meals, and to be watched for some indication of its wants. In this way it got access to some mashed potato, which it seemed to relish, and which also was not thrown from the stomach. The next article for which it seemed to show a desire was boiled cabbage, small quantities of which were also eaten with relish. A day or two afterward, I happened to call on the family at one of their meal hours, and I saw my patient eating with great relish, picking it up with its fingers, little bits of meat and potato hash. The child is rapidly convalescing on this kind of diet. I should add that the child had been suffering exceedingly with teething, and that its gums were seasonably scarified.

I trust that my digression from the subject appointed for this paper will be pardoned, for the reason that I stated in the commencement, that the abdominal complaints have not been very prevalent, or of a very severe character, in the community in which I reside, during the past summer.

I thought it might not be remiss to go back to past years for some illustrations of the idea which I would enforce, that it is important to study and watch for the needs and cravings of these sufferers from tedious and often fatal maladies.

The few cases of dysentery which have come under my notice the past season have been of a mild form. I do not propose to say anything of medical treatment in this disease. I will state my experience in the use of one article with which I indulged my patients, and which I also used the preceding summer. It was an indulgence that I found gave them no less surprise than pleasure. I allude to the use of watermelon, which, as is well known, we have had in great perfection and great abundance the past season.

It is never difficult to persuade a patient to take what appetite craves, though he hitherto supposed that the article was entirely prohibited. I have rarely seen patients enjoy anything more thoroughly than they have the melon, and I have seen only the best results from its use. I need not say, to be successful, it should be in a perfect state—neither too ripe, nor insufficiently so. In typhoid fever, I have been in the habit of allowing it for many years, always finding it much relished, a good febrifuge and diuretic, and a valuable means of allaying thirst.

I desire to bear my testimony to the importance and value of one other principle in the management of diseases under consideration. It is to be regarded of paramount importance ; namely, quiet of body —*rest.* Highly important in most diseases, it is indispensable in some. I do not fail to enjoin it most strictly in all cases affecting the abdomen. Even in cases not grave in character, a quiet, recumbent posture greatly facilitates recovery. I dislike to have a dysenteric patient rise from the bed during the course of the disease. Children, in their summer complaints, are equally benefited by a recumbent posture and entire quiet. I know it is not practicable to carry out this management with children always, but much may be done by perseverance and patience in this direction. Tossing babies about in the manner of some nurses and mothers, with the idea of easing their suffering and quieting their cries, must be looked on as an evil and useless habit. Cradles and other rocking machines should be condemned as worse than useless. The quieter children are kept, the less suffering and the less demand for medicine. I feel it should be our constant aim and study to reduce medicine to the minimum, being sure that, in the perfection of practice, we may dispense with the use of drugs to a far greater extent than most physicians are ready to believe at the present day.

I would not have any one present imagine for a moment that I undervalue the ordinary treatment in the summer complaints of children. It is to exceptional cases, cases which are not amenable to the usual remedies, that I have desired to call attention. I wish to urge the importance of finding out by any way we can in these protracted and often intractable cases sometimes met with, what the patient craves ; and if we can discover this, let it have a trial. Instinct may prove wiser than reason. In practicable cases it is better to let the child select for itself. The general disgust the child, after weeks of sickness, acquires for almost every article of nourishment afforded in the nursery, makes this desirable. It may reject the very thing it craves, when it sees you trying to force its use. Let it indicate its wants as far as possible, as in a case I above alluded to, and we shall be far more likely to obtain the desired result. Let various articles of food be placed before it ; then let the parent observe the pointing of the finger, and the suggestive sound it will attempt to utter, and we can hardly fail to meet its wants. We have already seen that it is of less importance what the article is, as that it meets the craving of the child.

I do not expect this plan will succeed in every instance, but that it will do so occasionally, my own experience and no doubt that of others has abundantly proved.

Every physician, as he travels on in his medical pilgrimage, will occasionally see a case of disease resembling others of its class, but which for some cause wholly, or to a great degree, fails to yield to the same mode of treatment which generally proves successful. It is well for him to take a note of these individual cases, as he may, after a while, use them as landmarks for future guidance. This remark is especially pertinent to the ailments of children during that period of their lives rife with danger attendant on diseases of the abdominal organs.

Progress in Medicine.

REPORT ON SURGERY.

By J. Collins Warren, M.D., Boston.

Etiology and Treatment of Metastatic Pyæmia. C. Hueter (*Deutsche Zeitschrift für Chirurgie*, Bd. 1, Heft 1).—In this article, Hueter reviews what he has already written upon the subject, and gives in addition the results of his experience of this disease during the late war. He retains the name pyæmia in spite of Virchow's opposition to it, for, he says, we as surgeons would be in danger of losing sight of the punctum saliens of the disease, namely, pus. Indeed, more numerous and more definite channels have been found for the reception of the cellular constituents of pus into the blood. Pyæmic diseases are divided into two categories, pyæmia simplex, the pyæmic fever caused by the reception of the fluid or cellular constituents of pus, coming from a single source, into the blood (through the lymphatics,) and pyæmia multiplex (metastatic pyæmia) where the fluid or cellular constituents of pus penetrate a thrombus, fragments from which carry them into the circulation. They are carried by the venous circulation to the right side of the heart, thence into the lungs and sometimes beyond into the arterial circulation and into distant organs. The chief cause of pyæmia is considered by surgeons to be bad ventilation and arrangements of hospital wards ; but between this and the metastatic abscess seen on the autopsy table lies a chain of clinical events which it is the duty of the student carefully to analyze.

The causes of pyæmia multiplex are divided into indirect, those favoring the formation of thrombi, and direct, or those favoring a softening and septic infection of thrombi. The development of thrombi is favored by a general and a local disturbance of the circulation caused by a diminution of the arterial pressure and a stagnation of the current in the venous system or in single veins ;. to the former belong old age, bad nourishment, loss of blood, traumatic fever and intercurrent febrile diseases, and to the latter, injuries to the tissues, tight dressings and compression of the veins by inflammatory processes. The softening of thrombi is produced by every form of paraphlebitis, such as the diphtheritic, phlegmonous, lymphangitic, &c.

The causes which render a thrombus capable of producing inflammation so that as an embolus in distant parts it gives rise to metastatic abscesses, are first a chemical infection, arising from decomposing *débris* of muscle or connective tissue, &c., or from the inflammatory poison of non-decomposed pus ; and, secondly, an animal infection, from the presence of monads (microsporon septicum. Klebs). [Klebs found that the fluid from wounds which contained the microsporon septicum in large quantities, when carefully filtered so as to free it entirely from these organisms and injected into animals, caused but a slight fever and never metastatic abscesses. If, on the other hand, fluid containing them was injected they died in a few days.] The monads appear in decomposing blood, pus or urine, and preserve themselves by coming in contact with the oxygen in these fluids. They are, hence, called " aërobien " by the Germans. In decomposing fluids containing muscle and connective tissue (i. e. in the decomposing materials of a fresh wound devoid of blood clots or pus), they disappear after the oxygen has been consumed, and are followed by larger organisms called vibriones, which cannot live in oxygen and hence are called " anaërobien."

The monads are as individuals a poison which causes inflammation of the living tissues by its presence. In virtue of their small size and ability to live upon oxygen, they are able to penetrate in great numbers the tissues and give rise to erysipelas, and also to those inflammations of the wound and surrounding connective tissue, to which the name diphtheritic is given. These latter processes, in distinction to erysipelas, soon give rise to suppuration and the formation of foul-smelling pus. Breaking down of thrombi infected with these organisms and with pus is followed by a formation of secondary pyæmic emboli. The thrombi undergo, indeed, a purulent metamorphosis, and in the metastatic deposits it is again the pus which sends substances into the circulation causing fever and death. According to Klebs, a simple emigration of the monads alone into the circulation is sufficient to produce secondary emboli. It is probable that pyæmic inflammation of joints and of serous membranes is caused by the presence of these organisms in the circulation, or they may be caused simply by the general inflammatory disposition of the tissues of the body under these circumstances. The treatment of pyæmia is, therefore, above all things, a prophylactic one. We must endeavor to prevent the formation and softening of thrombi. We have seen that their formation is produced by the general and local disturbances of the circulation. The former should be prevented by carefully avoiding loss of blood during operations and administering freely alcoholic stimulants in cases of secondary hæmorrhage. Antiseptic dressings should be employed to prevent the formation of fever-producing substances in the wound, and free drainage and avoidance of undue pressure is important for their removal. The diphtheritic inflammations are to be treated with carbolic acid or ferrum candens ; erysipelas with inunctions of pix liquida, which is supposed to poison the monads found in such numbers in the vessels and lymphatics of the affected part. Local disturbances of circulation are likely to be produced by carelessly performed operations, or by methods involving torn or jagged surfaces of wounds, also by too tight dressings as well as by inflammatory swellings of the surrounding tissues and formation of abscesses. The latter is to be treated by drainage and incisions. If pyæmia occurs, treatment of the fever and removal if possible of the infecting foci.

Results of Experiments on Pyæmia, by J. Burdon Sanderson (*British Medical Journal*, May 11. *Half-Yearly Abstract*, July, 1872). In 1867 he injected the purulent liquid contained in the ankle-joint of a patient who had died a few hours before with metastatic abscesses, general suppuration, arthritis, and intense septicæmia, under the skin in a dog and two guinea pigs. The two guinea pigs died within short periods, and exhibited symptoms of great intensity. Both had metastatic abscesses ; but in one the lungs were already beset with minute nodules resembling miliary tubercles. The dog lived eleven weeks and had no metastatic abscess, but miliary tubercles of spleen and liver. These and other inoculations showed that two sets of lesions might be produced ; as an immediate result, metastatic abscesses, accompanied by a general typhoid state which was often fatal ; as an ulterior result, either disseminated nodules which became caseous or interstitial induration, chiefly in lungs, spleen or liver. These facts led him to believe that the two forms of infective lesions, the pyæmic and tuberculous, were connected together etiologically and genetically. Bacteria, though not present in the healthy liquids or tissues, or in the products of healthy inflammation, were found in the pyæmic liquids and in the blood of pyæmic patients. Pyæmia originates by the introduction into the living tissues and blood of a poison which is itself a product of inflammations. The poison manifests itself in an alteration of the blood (chiefly the presence of bacteria), and in disorder of vital functions, the most prominent phenomenon being fever. The pus of metastatic abscesses he finds full of bacteria. The presence of bacteria enables us to distinguish infective inflammations from those which are not infective, and their number affords an indication of the degree of infectiveness; and secondly, their presence in the blood is an indication of that constitutional disturbance which accompanies infective inflammation, not only in the intenser forms, but also in the lighter forms of irritative fever. The pyæmic poison we have so far under our control, that beginning with an agent so mild in its action that it produces no marked symptoms, we can convert it into an agent of such intensity that it kills in two or three hours with formidable symptoms. This is effected by a process of *cultivation.* Dr. Klein made the important discovery, that if a pyæmic liquid were transferred to the peritoneum of a guinea pig, and allowed to remain there for a couple of days, although it did not at first produce any intense symptoms in the animal itself, its toxic intensity increased to such a degree that, when the transudation liquid produced in this was injected into another animal, it had acquired a most deadly activity; and that all such extremely active liquids were crowded with bacteria of a particular character, the increased number of which seemed to be in proportion to their toxic properties.

Finally, he states that pyæmia differs from tuberculosis in the rapidity of its progress and the obvious character of the anatomical changes of which it consists. Pyæmia resembles tuberculosis in its mode of origin. Both spring from inflammation.

M. Davaine, at the Academy of Medicine, at Paris, Sept. 17th, ult., in a paper on septicæmia, gave the results of his investigations on the injection of septicæmic blood, i. e., blood derived from an animal poisoned by putrified blood, into rabbits and guinea pigs. He found that the virus acquired increased intensity of power and activity by passing through the animal organism. On its last passage the blood of the rabbit killed by the ten millionth part of a drop, was injected into five rabbits in doses of the 100 millionth, the billionth, the 10 billionth and trillionth of a drop. All died within 24 hours.

In a second paper read on Oct. 8th, he proposed examining two questions, viz.: Does septicæmia, experimentally produced, invade all animals indiscriminately, or does it exert its special effects on certain species? And what is the condition which imparts an extraordinary virulence to the blood of an animal inoculated with a putrified substance? Rabbits were found more susceptible than guinea pigs. It appears to be a question of species. The experiments showed also that the virus of septicæmia and the ferment of putrefaction were identical. Under identical conditions of temperature they are both produced within the same space of time, and both lose a portion of their virulence if kept too long.—(*Med. Times and Gazette*, Oct. 19, 1872.)

Billroth on Traumatic Fever (*British Medical Journal,* July 20, 1872).—This fever is no necessary result of a wound, but is rather to be regarded as an accidental disease. It was held by Schönlein and his school that traumatic fever was a reflex result of the irritation of the nerves of the injured part. Billroth for some time accepted this view, but was led to abandon it by observing that there was no constant relation between the extent of the injury and the intensity of the fever. It was evident, he saw, that there was some intimate relation between the fever and the destruction of tissue; but the course of the fever presented phenomena not at first readily comprehended, namely, remarkable differences of temperature. These variations in temperature, after operations, have been the subject of special investigation by Billroth, in a series of experiments on healthy dogs. As the result of these, he finds that the only two agencies of which an elevation of temperature is a constant result are muscular action and the injection of putrid matters. In proceeding, finally, to explain in what way traumatic fever is produced, Billroth noticed the various theories which have been put forth by Zimmermann, Traube and Senator, Leyden and Liebermeister. He is most inclined to accept the hypothesis that materials are carried into the blood from the sloughing or inflamed part, and act on certain parts of the nervous system in such a way as to disturb the regulation of the temperature. The difference between septic products and those of inflammation is only in degree; there is no essential difference between them. It has been supposed that these products, when introduced into the blood, give rise to fever (increase of temperature) through an intermediate process of inflammation; but this is rendered improbable by the circumstance that the increase of temperature may take place when there is no trace of inflammation, and that it sometimes follows the injection of water, serum, &c. Again, although embolism by starch or charcoal causes the temperature to be raised, it is rarely attended by inflammation, or, if it be, it is only after some time has elapsed.

The fever-producing materials carried into the blood from sloughy and inflamed parts are not produced by the injury, but are the result of a septic process exercised on the wound. As to the question whether there is an introduction of germs or vibrios, Billroth abstains from giving a decided opinion, although he regards the truth of the germ-theory as probable.

The mode of Spreading of Inflammatory Processes, Billroth (*Volkmann's Klinischer Vorträge*, No. 4).—Inflammatory processes spread by means of an irritating material, developed at the original seat of inflammation to which the name phlogistic poison has been given. We must hesitate, however, to ascribe the spreading of inflammation alone to this poison, for there are facts which show undeniably the influence of the nerves, as, for instance, in herpes zoster. It is generally supposed that in psoas abscess the pus burrows its way by its own weight, but we find patients who, from the beginning of the disease, have been kept upon their backs, in whom the pus has taken the usual course. Billroth does not think that gravity has anything to do with it.

In what manner does the phlogistic poison spread?

1. The phlogogonous fluid infiltrates the loose cellular tissue by filling its meshes and perhaps, also, its fibres to the extent of their power of swelling.

2. The poison enters the lymphatics and is carried to the skin, causing erysipelas, or through the larger lymphatics of the cellular tissue to the nearest glands, causing lympho-adenitis or lymphangitis, or, finally, it penetrates the veins causing periphlebitis and thrombosis.

3. Both modes of spreading are influenced by the intra or extra vascular pressure.

In the subcutaneous cellular tissue the poison spreads by infiltration, as we have no lymphatic capillaries here. If it penetrates the larger lymphatics it causes a lymphangitis. The poison is carried from here centripetally to the glands, but not easily centrifugally to the skin. In inflammations of the subcutaneous cellular tissue we are likely to have a lymphangitis, but rarely an erysipelas. That in erysipelas the poison penetrates the lymphatic capillaries is shown by the peculiar coloring of the skin in patches and stripes as it spreads, and by its sharp outline.

In lymphangitis there is an hyperæmia of the perilymphatic cellular tissue caused by a passage of the poison through the thin walls of the lymphatic vessels. The peripheral part of the lymph stream affords the poison for this purpose, while the central part is carried to the blood, causing fever. In periphlebitis the process is similar. The infiltration of pus or serum into loose connective tissue obeys the laws of diffusion, and spreads in those directions which offer the least resistance. Fasciæ, bones and muscles offer the greatest resistance, as, also, dense cellular tissue. Capillary attraction, diffusion and filtration are of far greater importance in the spreading of inflammatory poison than the much over estimated action of gravity.

The enormous hyperæmia of the synovial membranes in joints, sheaths of tendons and subcutaneous bursæ, leads, at times, to exudation into their cavities, causing distention, yet in many cases the product of inflammation, the poison, is carried by fluxion alone into the lymph channels, penetrates the membranes of the joints and causes periarticular inflammation. Volkmann was the first to notice the fact that periarticular abscesses in tumor albus of the joints did not communicate with the interior of the joint. It has been supposed that in inflammation of the joints the primary seat of the inflammation was within the cavity, and the pus found its way into the subcutaneous cellular tissue in consequence of a perforation of the capsule. The possibility of this cannot be denied, yet in the majority of cases this does not take place. The cold abscesses are formed in the connective tissue about the joint, and eventually penetrate the joint through some thin portion of the capsule by ulceration causing acute inflammation and fever. The acute periarticular abscesses, on the other hand, very rarely penetrate the joint, for the lymph stream leads out of the joint and not into it. The phlogistic infection of the periarticular connective tissue, occurs in tumor albus, by the passage of the poison from the interior through the intact capsule. In acute inflammations of joints, particularly the rheumatic, the inflammation of the periarticular tissues is caused in the same way. The quantity of fluid in the joint may be very small, while the œdema about it may be very extensive. Pain is caused in these cases by the acute swelling of the synovial membrane—while in dropsy of the joint, there is comparatively little pain. The action of the poison on the periarticular tissue, is limited by the density or thickness of the membrane of the joint. In traumatic inflammation of the joint, the surrounding tissues are consequently liable to inflammation, as the membranes have not been previously thickened. On the other hand, when the disease begins with a chronic periostitis and inflammation of the capsule, we are not likely to have periarticular abscesses, as the disease is a secondary one and occurs at a time when the capsule is already much thickened,

Chronic urethritis may give rise to periurethral abscesses without perforation of the urethra. In many cases of stricture the constriction is caused chiefly by the inflamed periurethral cellular tissue, while the mucous membrane may be scarcely altered. It is a well known fact to gynæcologists, that ulceration of the uterine mucous membrane may cause a perimetritis, and that inflammation of the ovary may give rise to extensive retroperitoneal suppuration, without formation of pus, either in the uterus or ovary.

The spreading of inflammation ceases simply by exhausting itself, or by meeting with some insurmountable obstacle to its progress. Billroth closes this article with these words, "These processes evidently obey certain laws, which are only to be established by careful observation on which our treatment will be based. In studying the history of medicine, one is convinced that the principles of therapeutics have always been dependent upon physiological and pathological observations, and that practice has always been dependent on so-called theory, as action is dependant on thought."

Hospital Gangrene.—Prof. F. König. (Volkmann's *Klinischer Vorträge*, No. 40.) The author describes two principal varieties, the ulcerative form, phagedæna superficialis, and the pulpy form or phagedæna profunda. We often find a combination of the two, the pulpy form affecting the middle of the wound, while on the edges, a true ulceration is seen, and not unfrequently the special form seems to be determined by the peculiarities of the affected tissues. Gangrene of a wound of soft parts, as muscular and loose connective tissue, with juicy or œdematous granulations, assumes the pulpy form, rather than a wound in dense tissues less rich in water, like tough fasciæ, periosteum or cicatricial tissues. At other times the character of the epidemic favors the particular form. In a certain number of cases, the wound is covered with a tough gray membrane, covering and protecting the granulations, to which the name diphtheritic may be given.

Loose cellular tissue is the most favorable soil for the spreading of the disease, which is caused by the infecting peculiarities of the gangrenous products, which have the same infecting power as the superficial debris of the ulcer.

Internal organs are rarely affected, and the nerves and vessels possess great powers of resistance to the disease. A vessel once opened or a portion of it once having sloughed, it can neither retract, nor can a durable clot form in it. The vessel is generally very friable for some distance beyond the gangrenous point.

Fever does not precede the appearance of gangrene, but is due to the absorption of septic material formed by the disease. It may be continued or hectic.

Hospital gangrene can develop not only in a hospital, but also outside of it; it is seen frequently under circumstances that form epidemics, often appears at the same time with them, and has many points of resemblance to them. On the other hand its development is due to a specific poison, different from that which produces epidemics, and from that which causes simple septic inflammatory processes. The infection is a local one, and can only take place through a wound. That the disease is highly contagious, has been proved by experiments in animals as well as by clinical observation.

Hospital gangrene and diphtheria have been considered by many as identical. (By diphtheria, the author means the epidemic contagious angina, while the terms diphtheritis and diphtheritic, refer to conditions of the mucous membrane or of wounds, in which the surface is covered with a membrane penetrating the tissue and leading to its necrosis.)

The terms diphtheritis and diphtheritic should not be used loosely for hospital gangrene, but should only be employed when there is a well marked membranous formation. As to the identity of diphtheria and gangrene—we find frequently wounds infected by diphtheria, but they always have a very strongly marked diphtheritic aspect—moreover we rarely see diphtheria produced by an epidemic of hospital gangrene. In diphtheria a series of symptoms remain after the disappearance of the disease, cachexy, paralysis, &c., which we do not see after gangrene. Clinical facts do not prove the identity of the two processes. In regard to the origin of these two diseases, the experiment of Oertel, with which those of the author agree, show that diphtheria is probably of a parasitic origin. The enormous development of parasitic organisms is in such exact proportion to the clinical features and pathological changes, that it is almost impossible not to assume that there is some relation of this kind between the parasite and the disease. The parasitic origin of hospital gangrene has for a long time had its adherents, but neither have the objective examinations of the tissues been carried out to a satisfactory extent nor have the same experiments on the infectious nature of gangrene been made as in diphtheria. Vibrios and bacteria have been found in the broken down tissues, and Hueter has shown the presence of bacteria in the tissues, the blood, and the excreta, but this proves nothing, as they are found also in erysipelas and phlegmonous inflammations. It may be that their presence causes the development of certain chemical poisons, but satisfactory researches are wanting to prove this, which, however, to the author seems quite probable.

The treatment consists in isolation and the employment of caustics; nitric acid and strong solution of chloride of zinc are preferred. In order that the application may take effect, it is important to remove the sloughs thoroughly with scissors; and in order to destroy the subcutaneous and intermuscular connective tissue, which has become affected with the disease, it is necessary to lay them open thoroughly by free incisions, before applying the cautery. Chloride of zinc possesses the advantage that it does not destroy tissues covered with epithelium. It may be applied on charpie, which is stuffed into all parts of the wound. The slough separates in from three to ten days.

The Surgical Treatment of Fever in Gunshot Wounds. Heuter (*Sammlung Klinische Vorträge*, No. 22, Volkmann).—Septicæmia is caused by a decomposition of the secretions of a fresh wound. This is favored by the necrosed tissues which are deprived of their blood supply and hence of their oxygen. The true origin of the process we must seek for, however, in the germs of the vibrio. According to Pasteur, the air contains such germs nearly everywhere, and they find their way readily into wounds. If they find here moist albuminous tissues, which are not impregnated with oxygen, they multiply rapidly to milliards and noiselessly perform their work. They separate complicated organic combinations, as, for instance, albumen into simpler, and finally into the simplest combinations, into ammonia, carbonic acid and water. This decomposition does not occur immediately, for between the complicated and simplest combinations there exist a series of combinations whose chemical characters it is difficult to determine. Some of these have a special surgical interest, as they excite inflammation in those tissues with which they come in contact, and cause fever when they find their way into the circulation. We call these phlogogonous and pyrogonous septic substances. Some of these substances, which act upon the body like a poison and may be classified under the head of putrid poisons, have been isolated, and to the first and most important of them discovered by Bergmann the name sepsin was given by him. Bergmann discovered that sepsin had the same toxic action upon animals as the combined putrid fluids from which he extracted sepsin. This early traumatic fever is, therefore, a septicæmic fever. At a later stage, these putrid substances decompose the tissues with which they come in contact and cause inflammation and suppuration, and in the pus, which, likewise, can become decomposed, arises a new focus for the development of inflammatory and fever-exciting substances. The fever increases, and in a few days the wound fever loses the character of a simple septicæmic fever and becomes, with the appearance of suppuration, a septico-pyæmic, and, finally, with the disappearance of the putrefactive process and the continuance of suppuration, simple pyæmic fever (pyæmia simplex or suppurative fever). The wound now filled with granulations blocks up the lymph channels and prevents the penetration of phlogogonous and pyrogonous substances. The secondary fevers (wundnach fiebern) following this stage are produced by the decomposition of normal pus, which, containing quantities of free oxygen, permits the development of the monas crepusculum, while the vibrio disappears. The monas may, possibly, give rise by its presence to the formation of septic poisons, but it is itself a poison, and causes erysipelas and diphtheritic inflammation of the wound (including hospital gangrene) and diphtheritic phlegmonous inflammation of the connective tissue. The most interesting part of his treatment, which is given in detail, is the antipyretic transfusion of healthy blood in cases of septicæmia and pyæmia simplex or multiplex. The object is to moderate the deadly power of the blood poison. In a case of acute septicæmia, while the patient was moribund, the transfusion of a pound of healthy blood completely revived him. This was followed by a second transfusion, which preserved his life for three weeks, when he succumbed to a severe secondary hæmorrhage. In the case of a severe wound to the joint, with dangerous fever symptoms, we might first treat the fever with transfusion, enabling the patient to undergo an operation, and then treat the source of the fever by a resection. Prof. Albanese, in Palermo, has had success with transfusion employed in this way. Perhaps some day we shall discover a chemical combination which we can send into the circulation to destroy the poisonous action of sepsin.

[To be continued.]

Reports of Medical Societies.

BOSTON SOCIETY OF MEDICAL SCIENCES.

EDWARD WIGGLESWORTH, JR., M.D., SECRETARY.

Sept. 24th, 1872. The Society met at the house of Dr. Dwight, Dr. Ellis in the chair.

Sibron's Surface Thermometer.—Dr. Amory exhibited two thermometers. In one, a broad surface of application was obtained by means of a coil of glass imbedded in mastic. In the other, the same advantage was acquired by means of a metallic chamber covered with india rubber. A broken column of mercury served as an indicator. Five to six minutes were usually required to ascertain the exact temperature.

Dr. Ellis spoke of the advantage derived through avoiding, by means of rubber, all actual contact, saying that, in the thermometers in general use, the mere pressure was sufficient to raise the mercury several degrees.

Dr. Dwight considered it advisable to compare always the temperature of the two sides of the body, as that of the right side was usually higher than that of the left.

Dr. Amory concurred with Dr. Dwight as to disease in general, but added that, in neuralgia, the temperature was higher on the side affected.

Sections of the Spinal Cord. Isolated Nerve-Cells.—Dr. Dwight then introduced to the Society Dr. Robert McDonnell, of Dublin, who exhibited some clarified sections of the spinal cord prepared by Dr. Lockhart Clarke, of London. A longitudinal section of the spinal cord of an ox showed the gray matter more deeply stained than usual, and displayed most beautifully both the nerve-cells and the anterior horn of gray matter.

Dr. McDonnell remarked that his own attention had been more especially devoted to the distinct elements, and he next showed some remarkably fine specimens of isolated nerve-cells.

In reply to Dr. Ellis, Dr. McDonnell stated that his method of preparing these specimens consisted in placing a piece of the cord in chromic acid and allowing it to remain some time. He then made his cuts with a razor. Next he used his solution for staining. Then he washed the specimen with alcohol, and, placing it upon a slide, allowed a drop of spirits of turpentine to run down the slide and under the specimen, so as to float it, tapping meanwhile with his finger upon the glass. In eight to ten minutes the specimen becomes beautifully clear. Finally, Canada balsam may be used. For purposes of coarse anatomy a pocket lens is now sufficient. Dr. McDonnell next spoke of the advantages of a weak potassa or ammonia solution for isolating the groups of cells from surrounding caudæ. One process, terminating in the axis cylinder of a nerve, is said to be larger than the others. Dr. McDonnell had not been able to prove this to his own satisfaction. One drop of the alkali to a half ounce of water is enough. More softens the cord and causes it to break up.

In reply to Dr. Jeffries, Dr. McDonnell said that the shrinkage from the use of chromic acid was slight. Glycerine and a drop of carbolic acid being placed on the cells, and these separated with a needle, the mechanical pressure exercised in pricking them apart is so great that the shrinkage from chromic acid cannot be determined.

Comparative Rate of Growth in the two Sexes.—Dr. Bowditch exhibited a diagram showing the rate of growth in height in the two sexes. The curves of growth were so drawn that the abscisses gave the age in years and the ordinates the height in feet and inches. They represented the average measurements on thirteen individuals of the female, and twelve of the male sex. The measurements were all taken annually during the last twenty-five years, and the individuals were all nearly related to each other. An examination of the curves shows the following facts:—

1. Growth is most rapid during the earliest years of life.
2. During the first twelve years boys are from one to two inches taller than girls of the same age.
3. At about twelve and a half years of age girls begin to grow faster than boys, and during the fourteenth year are about one inch taller than boys of the same age.

4. At fourteen and a half years of age boys again become the taller, girls having at this period very nearly completed their growth, while boys continue to grow rapidly till nineteen years of age.

The tables and curves of growth given by Quetelet* show that in Belgium girls are at no period of their lives taller than boys of the same age, though at twelve years of age their weight is precisely the same as that of boys, and decidedly less both before and after that period. Measurements taken among the lower classes in Manchester and Stockfort,† show that during the thirteenth and fourteenth years girls are superior to boys of the same age both in height and weight.

It would be interesting to determine by more extended observations, in what races and under what climatic conditions the growth of girls at about the period of puberty is the most rapid. It is possible that in this way facts may be discovered bearing upon the alleged inferiority in physique of American women.

Dr. Nichols remarked, in this connection, that five-sixths of his own height was due to growth during the summer months, he having been measured every April and September, from the age of six months to that of twenty-one years.

In reply to Dr. James, Dr. Bowditch said that growth went on, though slowly, to nearly twenty-five years of age.

Medical and Surgical Journal.

Boston: Thursday, December 19, 1872.

THE MARINE HOSPITAL SERVICE.

Our readers will recall the fact that an important branch of the public service,—that which governs the marine hospitals in our principal seaports,—is now under the control of the Department of the Interior, and that Dr. John M. Woodworth, of Washington, is the Supervising Surgeon. We hope soon to receive the annual report of this service, which is now in the hands of the printer. In this Dr. Woodworth gives a succinct history of the service, from its organization in 1787 to this time. From its organization it has had a somewhat anomalous position, and its separate existence has been continued with difficulty; during the past four years it has fallen into a state of inefficiency and abuse. The office of supervising surgeon was created by Act of Congress, passed June, 1870, and Dr. Woodworth is the first incumbent. He has given, as his report shows, his full devotion and enthusiasm to the work.

There are now thirty-two marine hospitals belonging to the government. The first was established at Norfolk in 1800; Charleston and Boston were next made hospital sites; and they have been built successively at ports on the Atlantic and Pacific shores and the lakes, as circumstances have required.

During the present year 405,814 days of medical relief have been given within the hospitals, exclusive of that afforded outside, while the facilities for furnishing relief have been greatly increased. The expenditures have been decreased to the amount of $56,000. The amount of the tax collected is $35,000 greater than in any previous year. The men of the merchant marine, foreign and coasting, including fishermen, boatmen, canal men, &c., are the ones benefited. Forty cents per month is collected from the wages of seamen when employed.

Dr. Woodworth recommends that the seamen belonging to our revenue cutters, coast survey and army engineers corps vessels, as well as those employed by the lighthouse board, be brought within its benefits. The nature of their duties and the localities and circumstances in which they are performed are such that an enlargement of the benefits is a matter of justice. He also recommends that the law be amended so that the actual cost incurred for the treatment of foreign seamen be paid, instead of as now required, limiting the amount to seventy-five cents per day. New hospital buildings are recommended at New York and San Francisco. The sale of the Pittsburgh property and the erection of new buildings is also urged. Dr. Woodworth urges that the hospitals be constructed of wood, as light and cheap as may be, and their destruction after ten or fifteen years, both as a sanitary and economical policy. The prime object of having hospitals at all is to secure favorable treatment and results in diseases and injuries, and not, as has been too often the case, mere architectural effect or the favoring of localities. The report contains elaborate tables giving amounts expended each year, the number and diseases treated, also data relative to surgical operations performed during the last year in these hospitals.

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* Sur l'homme et le développement de ses facultés. Paris, 1835.

† Op. cit. Vol. II, p. 19.

WEDL'S PATHOLOGY OF THE TEETH.

Prof. Wedl's work on the Pathology of the Teeth, according to the Dental Cosmos, contains so much that is new as the result of German investigation, that it surpasses the comprehension of most of our American students, and proves unsatisfactory to all except the most advanced among practitioners—and in many respects to them also. The view thus advanced is strikingly in accordance with that expressed to ourselves by a Philadelphia gentleman some months since in respect to the same work. We cannot fail to express our regret that such an opinion should be entertained by so discriminating a professional organ as the Dental Cosmos ; we feel sure that the statement is disproved in our own neighborhood at least, where dental students have long waited for just such a thorough scientific work as that which Prof. Wedl has offered ; where the study of general human pathology has kept pace during the past few years with the most advanced investigations of foreign savans ; and where instructors in the dental as well as the medical schools are *determined* that the best, the most thorough and scientific training shall be afforded their students, as well as that which is more apparently practical and useful.

If the sole object of dental education is to teach men how to extract and fill teeth, then such a volume as the one in question is indeed out of place ; but we are glad to recognize the fact that dentistry of the present day has risen above the plane which makes it simply an art, and that it has become a science. It must keep pace with medicine, recognizing the facts in pathology which are now universally and unreservedly accepted, or it will cease to maintain the respect we have learned to entertain for it. We cannot help feeling that such views are behind the day, that they are unwarranted in fact, and unworthy to be advanced by dental educators.

A REPLY.

A correspondent of the British Medical Journal expresses his inclination to emigrate to the United States or Canada, with a view to earning a living or laying up something for a rainy day. He also asks for a suitable place where a medical man may locate—" one that could put up with a little rough life for the chance of earning his daily bread, and having a little to spare."

We fear we might be considered an interested party, were we to say that every city and town throughout our land is already supplied with native talent, and nearly every village and hamlet has its Bob Sawyer, thirsting for chances to amputate, to deliver, to catheterize, to kill or cure, on the slightest hint of opportunity. The *cacoethes operandi et medendi* was aptly illustrated by a well-known surgeon in our own city, who on reaching the spot found *five doctors* in busy attendance on a wounded man in an accident which he had himself witnessed at barely a block's distance.

But, soberly speaking, we recur to a former editorial of our own, where we reminded our English brother that *numerically* we are already well supplied with medical men ; but that in many a town and village we fail to find the true scientific attainments which make a man a *good* physician. Here, as in other lands, men have entered the medical profession who are unfitted by moral, intellectual or scientific qualifications to fill the role which the high standard of the day demands. In this country a man is seldom asked whence he came, or what are his antecedents, but *what can he do?* The spirit of republicanism abjures castes and clicques ; and our patent of nobility consists in the ability which each one possesses to perform the duties of his position. There is scientific work to be done, and honest scientific men alone can do it. If the correspondent of the British Medical Journal has the true grit, let him come over and try his chances. The places are open ; let him take them, *if he can.*

OUR BRETHREN IN THE COUNTRY.

The fact that physicians in the country so seldom contribute to the medical literature of the day is, we believe, to be regretted. A certain dread of writing deters many a man from putting pen to paper who has good solid thought in his brain, who studies nature more profoundly than we do in the city, and communes with her more intimately. In his long rides about the country from one sick bed to another, he has abundant time to think over each case critically, and to lay out the probable course of the disease and the care which will be demanded for it. Far away from his brethren at times, remote from drug and instrument shops, he is forced to rely on his own inventive powers. A double inclined plane may be as well made from clapboards as purchased from an instrument maker; and a pocket knife serves to eviscerate and deliver a fœtus, provided it is only in the hands of a man who knows what he is about and has the energy to do his duty.

Our own views regarding the course which such men owe themselves and us are embodied in a few lines which we clip from a report of a branch of the British Medical Association, sent us by Dr. Styrap, the Honorary Secretary. It is as true for England as for America. The committee "are of opinion that if each thoughtful practitioner (especially their rural brethren, who are necessarily thrown so much more upon their own individual resources than are practitioners in populous towns) were to jot down, as briefly as may be, any successful deviation from the ordinary treatment of disease which may occur in his practice, and favor us with the result at the Annual Meetings, we should ere long be furnished with a mass of valuable practical hints, which, at present, are simply stored up in the brain of the busy practitioner; and, on his decease, too often lost to suffering humanity."

We had already put our manuscript in the hands of the compositor, when we received a letter from a valued subscriber on the very topic to which we have alluded. We let some of his sentences speak for themselves.

"I have felt that if I sent you some of my own thoughts, probably a want of taste and scholarship would become apparent in my communications. With a large country practice a man has to be driving about, facing the storms and contending with the elements; while, with an equally large city practice, he would have time to read up in his profession. Hence rural practitioners, as a rule, are not prepared to report their experience in so scholarly a style as our urban brethren. * * * We frequently have not at hand the appliances for doing our work in the highest style of the art, and are obliged to improvise means to accomplish certain ends, which to you would seem rather ludicrous. We, in our isolated situations, are obliged sometimes to assume very grave responsibilities single-handed and alone. * * * I think if our cosmopolitan brethren, to whom we are wont to look as authority, would criticize us kindly, and accompany criticism with practical suggestions, we might improve ourselves and obtain useful information by reporting even our blunders."

We thank our brother for these very sentences; they serve as confirmation of our own words previously written, and we have already given the answer. If any one of our brethren in the country has *good* and *valuable* thoughts in his head, let them not be lost among the mountains and valleys which witness their birth. It is every man's *duty* to pay back something for that he has received; and if we of the city cannot recut the stone, or give it a finer setting, let it go—the rough diamond as it is—in spite of its homely exterior.

The Hospitals.

MASSACHUSETTS GENERAL HOSPITAL.

Case of Paralysis of Wrist and Fingers.—[Service of Dr. Minot.]

On October 19th, an expressman entered the hospital with paralysis of the left wrist and hand. He had previously enjoyed good health, though suffering from the scrofulous diathesis which was inherited from his mother. He had always had good lodgings and good food, but had been much exposed to cold and bad weather. At one time after a long drive, he found himself the next morning unable to raise the left wrist. There was no history or evidence of lead poisoning. The bowels were regular. After about a week, as there seemed no tendency towards recovery, he was put upon the tinct. mur. iron, and electricity was daily used. He also took alkaline baths twice a week. At the time of admission there was a troublesome eczema of the legs.

After about two weeks' continuous use of electricity, an improvement began to be evident. After three weeks' time the hand could be used perfectly well. The eczema also improved, and he was discharged as cured.

BOSTON CITY HOSPITAL.

Case of Fractured Skull.—[Service of Dr. G. W. Gay.]

Ann C., æt. 50, admitted Oct. 22d, 1872. Patient was brought to the hospital about 2 o'clock in the morning, said to have been assaulted by her husband with a hatchet. On entrance, examination revealed several wounds—one about two and a half inches long in the left parietal region; another one inch long over the eye of the same side, cleanly cut and not extending to the bone; another, one inch long, in the frontal region; and still another, about two inches long, just above the occipital protuberance, extending to the bone, which could be felt denuded. On the right side, posterior to the frontal eminence, was a lacerated wound about one inch in length. There were severe contusions upon the chin and left mastoid process. The wound above the left ear extended through the bone, and a probe passed in delicately was raised by each pulsation of the brain. A small amount of what appeared to be brain substance was noticed upon the hair covering the wound. Pulse 100. The patient did not appear perfectly rational, although at times her mind seemed quite clear. The wounds were closed by sutures, except the one communicating with the brain, and cold water dressings applied.

Oct. 23d.—Pulse 120. Patient quite rational; no paralysis. The brain substance filled the wound and protruded a little. She had ice water applied to the head, and a diet of milk and beef-tea.

Oct. 24th, evening.—Pulse 104. Skin natural. She seemed to be perfectly rational. All the wounds had united by first intention, except that through which the brain protruded, and that was in good condition.

From this date, the patient continued to improve, and on the 20th of Nov. was able to walk about the ward.

Case of Fracture of the Pelvis.—[Service of Dr. G. W. Gay.]

James R., æt. 23, carpenter, was admitted Nov. 1st, 1872. About three and a half hours before, patient was attempting to cross a railroad track, when he was struck by a passing train and severely injured. On examination, it was found that he had a fracture of the left ilium, extending through the thin portion of the bone. There was an opening about two inches in length at the outer side of the anterior superior spinous process of the ilium, and on introducing the finger, great laceration of the tissues and splintering of the bone were found to exist. There had been some hæmorrhage, and he was in a state of slight collapse. Pulse 100, and feeble. A compress and firm bandage were applied. A catheter was passed and the urine found to be quite bloody. At the first entrance of the catheter clear blood escaped, but afterward the urine became more clear.

Nov. 2d.—He had kept down but little nourishment since entrance. Pulse 104, feeble. Urine scanty.

Patient being etherized, the wound was enlarged in a line parallel to the crest of the ilium, and several large splinters of bone removed. The fracture was found to extend upward toward the crest of ilium, and anteriorly to about midway between the anterior superior and inferior spinous processes. The pubic bones were somewhat loosened, but not fractured. Evening.—Pulse 152; skin hot; patient very thirsty.

Nov. 3d.—Slept a little last night by aid of anodynes. Skin hot. Pulse 152.

Evening.—Abdomen tympanitic. Pulse 152. Patient was very restless, and vomited a good deal. He died at 10, A.M., on the following day.

Case of Fracture of the Spine.—[Service of Dr. G. W. Gay.]

Patrick S., æt. 24, teamster, was admitted Oct. 21st. While under the influence of liquor, he was run over by a team, the wheel passing over his neck. On entrance, he complained of pain in his neck and seemed to be very drunk. Pupils normal. Some abrasions about face and head, but nothing presenting a very serious aspect. Pulse 100. He was put in bed, and ammoniæ carb., gr. v., was ordered to be given every hour for three hours. Three hours later, he gave his name, answered questions rationally, &c. The lower extremities were paralyzed; respiration mostly abdominal. The arms were also paralyzed; he could raise his hand to his head, but could not grasp with, or move, fingers. The urine had to be drawn off by catheter.

Oct. 22d.—Slept some during the night. Had priapism. Complained of great thirst. Tongue coated brown in the centre.

Evening.—Temperature in axilla 104°. Pulse 104. Respiration 32. Was in great pain, and made so much noise that he was kept in a separate room.

Oct. 23d.—Condition worse. The conjunctivæ were considerably reddened. He did not sleep much during the night, although large doses of morphia were given. Pulse frequent and full. He died in the evening.

After death, distinct crepitus was detected in the neck; the fracture was probably between the 6th and 7th cervical vertebræ. No autopsy was allowed.

Case of Gun-shot Wound.—[Service of Dr. Fifield.]

C. N., æt. 30, painter, admitted Oct. 1st. The previous night, he was shot by the carelessness of a comrade, the ball striking the right hypochondrium about three inches to the right of the median line. A probe passed only through the integument and adipose tissue. When admitted, he was in a state of shock. Pulse 100, and feeble. Suffered from pain in the right shoulder.

At 9, P.M., the temperature was 99·5°. Pulse 80, and irregular. Some pain was felt within a radius of six inches around the wound. He was obliged to crook the body forward coutinually, on account of the pain in attempting to stand erect. On passing the catheter, the urine was found to be quite bloody.

2d.—No pain in shoulder. Said he felt very well. No abdominal tenderness. Pulse intermittent.

3d.—Condition good. Complained of nothing.

5th.—Only has pain in attempting to maintain an erect position. Micturates freely, and urine is free from blood.

8th.—Discharged relieved.

Case of Rupture of Urethra, with Extravasation of Urine.—[Service of Dr. G. W. Gay.]

James L., æt. 36, admitted Nov. 24th. The patient was an inmate of the Suffolk jail when he was first seen by Dr. Gay, Saturday evening, Nov. 23d. He had complained of trouble that morning for the first time. On examination by the attending surgeon at the jail, there was found to be extravasation of urine into the scrotum. Two or three incisions were made at the most prominent points, and a large poultice applied. At night, he was much more comfortable, and the urine oozed freely through the incisions, as well as from the meatus. As there were no conveniences for treatment at the jail, he was removed to the hospital.

Nov. 25th.—The scrotum was greatly swollen, from penis to anus, hard and brawny, and had begun to slough in the median line. Free incisions were made into the scrotum, and several ounces of pus and urine escaped.

As phimosis existed, the prepuce was slit up for one-half inch on its upper surface. At the meatus, there was a slight stricture, hardly admitting a small probe. This was ruptured forcibly with a conical bougie, and on passing the instrument farther along the canal, there was found to be a narrowing just before reaching the bulbous portion. This was also dilated, and the bougie entered the bladder without further trouble. On exploring the scrotum with the finger, the excavation was found to extend back to the anus and behind to the urethra, but the opening in the urethra was not found. The penis not being swollen nor œdematous, an elastic catheter was passed into the bladder and fastened. As the catheter entered the bladder, six or eight ounces of urine came through it. The patient was put into bed and a compress applied, wet with solution of chlorinated soda.

Evening.—Pulse slow and full. Stimulants ordered.

The patient recovered.

Rupture of internal lateral Ligament of Knee.—Lawrence R., æt. 55, was admitted Oct. 11th. About half an hour before, the patient had been injured by a heavy stone rolling upon him. On entrance, examination showed that a rupture of the internal lateral ligament of the right knee had taken place, with extensive bruising and extravasation of blood about the middle of the outside of the thigh. The limb was placed at rest in a long fracture-box and evaporating lotions applied.

16th.—Abscess threatening in thigh.

18th.—The right thigh was greatly swollen and fluctuation detected easily. Skin red and nearly ready to break. The patient was etherized and an incision of three inches in length was made in the outer side of the thigh at junction of the upper and middle thirds. This gave exit to about ten ounces of pus, and left a large cavity, about 8 inches long by 4 inches wide, outside the muscles.

20th.—Condition improving. Fever subsiding and appetite increasing. Discharge free and healthy.

Nov. 15th.—The limb was removed from the fracture-box and a ham splint and firm bandage applied.

Medical Miscellany.

CERTAIN medical men in London have caused the prosecution of various quacks in that city, who have falsely represented themselves as medical practitioners. One noted charlatan has already been held for his appearance, under the Medical Act. The profession in London intend these to be test questions, on which to found farther action.

VOLTAIRE's definition of a physician is: "An unfortunate gentleman, expected every day to perform a miracle; namely, to reconcile health with intemperance."

SIR WILLIAM JENNER is to be the new President of the Pathological Society of London.

MR. HARGRAVE has retired from the Professorship of Surgery in the Irish College of Surgeons and the Surgeoncy in the City of Dublin Hospital.

BOSTON LYING-IN HOSPITAL.—For some years past the Trustees of this Institution have not deemed it advisable to maintain a hospital. The apparently urgent need of such a charity at the present time, however, has induced them to re-establish it. To this end they have secured the house No. 24 McLean Street, and have caused such alterations as may be necessary to be made. It is expected that the hospital will be opened for the reception of patients on the 1st of January, 1873.

The officers of the Institution are:—

President, Charles Hamilton Parker; Vice-President, Francis Boyd; Treasurer, Thornton K. Lothrop; Secretary, F. A. Hall; Trustees, Charles G. Putnam, M.D., Abbot Lawrence, Charles E. Ware, M.D., James Ayer, M.D., Thomas Hollis, Horace Dupee, M.D., William Amory, Samuel K. Lothrop, D.D., Thomas Restieux, Uriel Crocker; Consulting physicians, Francis Minot, M.D., John P. Reynolds, M.D., C. E. Buckingham, M.D.; Visiting Physicians, Henry Tuck, M.D., W. L. Richardson, M.D.

THE plans for the long-talked-of new buildings for the State Lunatic Hospital, which are to be erected on the land near Lake Quinsigamond purchased by the State for that purpose some two years since, are approaching completion. Dr. Eastman, the new superintendent of the hospital, has given the subject much careful consideration, and, in consultation with the trustees, and with the superintendents of the best institutions of the same character in the country, has matured a plan which seems to combine all that is essential in this edifice. The building will cover an area of some 1200 by 400 feet and is four stories in height. Four or five hundred patients can be provided for in the different wards. The material of the building will be either brick or stone, and its architectural design contemplates the securing of the best accommodations for the greatest number of patients, with as little as is possible of costly ornamentation. The plan has been submitted to many men experienced in the care of the insane, and meets with their general approval. If it meets the approval of the governor and council, the details will be worked out as promptly as is possible, and the work of construction will begin in the spring. Two years or more will be required for its completion, by which time the present buildings, already insufficient and ill adapted to the best treatment of patients, will have become overcrowded.

THE AMERICAN MEDICAL EDITORS' ASSOCIATION offers a prize of $100 for an essay, to be awarded in May, 1873, "On the Pathology and Treatment of Diseases of the Ovaries." The subject of the prize for 1874 is, "At what stages of Pulmonary Tuberculosis is a change of climate desirable; what are the principles which should govern us in choosing the kind of change to be made, and the best localities in North America to send patients of this class?" The prizes are open for competition by medical *editors* only.

PAMPHLETS RECEIVED.—The Use of the Seton in the Treatment of Chronic Affections of the Womb. By Ely Van de Warker, M.D. New York. 1872. Reprinted from the Journal of Obstetrics.

MARRIED,—In New York, 12th inst., Dr. John C. Jay, Jr., to Miss Harriette A. Vinton.

DIED,—In New Orleans, Dec. 6th, Warren Stone, M.D., aged 65 years.

Deaths in fifteen Cities and Towns of Massachusetts, for the week ending Dec. 7, 1872.

Cities and Towns.	*No. of Deaths.*
Boston	147
Charlestown	11
Worcester	22
Lowell	16
Milford	4
Chelsea	9
Cambridge	24
Salem	12
Lawrence	10
Lynn	19
Gloucester	4
Fitchburg	1
Taunton	5
Somerville	8
Holyoke	7
	299

Prevalent Diseases.

Smallpox	52
Consumption	49
Pneumonia	20
Scarlet Fever	19
Typhoid Fever	18

The deaths from smallpox were as follows:—forty-one in Boston, six in Cambridge, two in Charlestown, one in Lawrence, one in Lynn, and one in Holyoke. Of the deaths from scarlet fever fifteen were in Boston.

GEORGE DERBY, M.D.,
Secretary of State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, December 14th, 188. Males, 99; females, 89. Accident, 5 aneurism, 1—asphyxia, 1—inflammation of the bowels, 1—bronchitis, 4—inflammation of the brain, 2—congestion of the brain, 1—disease of the brain, 1—cancer, 5—canker, 1—consumption, 22—convulsions, 5—croup, 2 debility, 3—dropsy, 2—scarlet fever, 18—typhoid fever, 7—gastritis, 2—disease of the heart, 4—intemperance, 3—disease of the kidneys, 3—disease of the liver, 1—congestion of the lungs, 7—inflammation of the lungs, 10—marasmus, 7—measles, 1—old age, 4—paralysis, 1—puerperal disease, 1—pleurisy, 1—peritonitis, 1—pyæmia, 2—scalded, 3—smallpox, 51—suicide, 1—teething, 1—unknown, 3.

Under 5 years of age, 68—between 5 and 20 years, 18—between 20 and 40 years, 54—between 40 and 60 years, 28—above 60 years, 20. Born in the United States, 112—Ireland, 39—other places, 37.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

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Original Communications.

INTESTINAL HÆMORRHAGE IN TYPHOID FEVER.

Read before the Providence Medical Association, Nov. 4, 1872.

By Charles W. Parsons, M.D., Providence, R. I.

The death of Dr. Lyman L. Swan, a valued member of this Association, gives a particular and melancholy interest to the disease and the special symptom by which he died. At the meeting held in respect for his memory on the 23d of September, it was mentioned that after being somewhat unwell for a few days, he walked about and packed his carpet-bag, on Monday the 9th of September, made arrangements for an expected illness, and took to his bed that day. Dr. Brown, who attended him with great fidelity, had a few years before seen him through an attack of mumps, which was accompanied by so much prostration and delirium as to be alarming. He knew, also, that Dr. Swan had been working hard in his profession, and had had extra fatigue and anxiety on account of the sickness and death of a brother, from heart-disease, at the country homestead some nine miles distant. Anticipating a serious attack, Dr. Brown called in Dr. Collins, who visited constantly in consultation, beginning on Wednesday, September 11th. Dr. Swan early showed great weakness, especially by the voice, which was husky or whispering. He had not much delirium, less throughout this disease than with the mumps. He was rather constipated at first, took some aperient medicine, and never had any great diarrhœa.

In the night succeeding Thursday, Sept. 19th, ten days after his illness may be considered to have begun, he had his first hæmorrhage from the bowels. This occurred again, very profusely, toward noon of next day. These repeated losses of blood rapidly exhausted his strength; but his intellect was little impaired; after this excessive hæmorrhage, he executed his will. His voice returned to some extent that evening; but his strength and pulse did not, and he died about 2 A.M., Saturday, September 21st. If we date his typhoid fever from the time when he took to bed, on which same day he had been walking in the street, then he had entered on the twelfth day of his disease. He was nearly 34 years old.

From the interest we all feel in this case, personally and professionally, I have been led to look up the recorded experience of physicians who have seen much of typhoid fever, and seek an answer to some questions that occur in relation to this symptom of *hæmorrhage from the bowels.*

I. The *frequency* of this symptom in typhoid fever varies a good deal in the experience of different observers. Doubtful diagnosis may explain part of this diversity, but not all.

No reports in the English language have thrown more light on the natural history of continued fevers than Dr. (now Sir William) Jenner's. At the London Fever Hospital, in the years 1847–49, when typhus spread from Ireland to Great Britain and the United States, he collected nearly 2000 accurate reports of cases. After separating cases of relapsing fever, he selects from the others those fatal cases of which the diagnosis had been confirmed by autopsy. There were 66 such cases and records of *post-mortem* examinations. Of these, 23 presented the intestinal and mesenteric lesion—the anatomical sign of typhoid fever—43 did not present it. The two groups were named by him typhoid and typhus, the distinction being based on these *post-mortem* appearances. They presented marked differences in their history, "so different, indeed, as to render their separation a matter of absolute necessity, if accuracy was to be maintained in the descrip-

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tion of these diseases, or certainty arrived at in their treatment." The typhoid cases (or those where the lesion referred to did exist) were all under 40 years old; nearly one-third of the others were over 50; the average duration of the fatal cases was, in the first group, 22 days; in the second, 14; the eruption was, according to Jenner, as different in the two sets of cases "as well could be, considering that both were of a reddish hue." Other distinctions show that these fever cases make two groups, generally unlike in important points, though these may run into one another. Now, in 15 of the typhoid cases where the presence or absence of epistaxis is mentioned, it occurred in 5 (or one-third); in 23 cases of typhus it occurred in none. And Jenner's report states that hæmorrhage from the bowels occurred in one-third of the cases he calls typhoid, in not one of the typhus. Only one of the typhus patients in three years had discharge of blood from the bowels, and that was an old man with hæmorrhoids.

Dr. John B. S. Jackson, for many years the leading morbid anatomist of Boston, reports in this Journal, Aug. 8th, 1872, 43 fatal cases of typhoid, of which he had some notes of the *post-mortem* appearances. In 5 of these, hæmorrhage from the bowels was considered the cause of death.

Of 303 cases of typhoid, at the Massachusetts General Hospital, analyzed by Dr. James Jackson, 31 presented this symptom. Flint observed it in 3 out of 73 cases that he analyzed. This autumn there have been 12 cases in the Rhode Island Hospital; two had hæmorrhage.

At the Hotel Dieu, in Paris, Louis observed 46 fatal cases, which are analyzed in his treatise on Fever, and of which he considered the diagnosis made out. Of these, only two presented this symptom, and one of these (observation xliv.) ranked by him as latent typhoid, was a tubercular case, the record of which, as he gives it, reads very much like acute tuberculosis. He speaks of three cases of this hæmorrhage in typhoid—in each repeated for a few days—and followed by recovery.

Chomel, at the same hospital, observed this hæmorrhage during life in 5 out of 42 fatal cases, and concealed hæmorrhage within the small intestines, ascertained after death, in one more.

All these statements must be considered as referring to adults, or those past the age of puberty. In the typhoid of children, hæmorrhage appears to be rare. Rilliet and Barthez, in their great work on Diseases of Children, give no instance of it in 111 cases of the disease. They quote one at the age of 14, a fatal case, observed by M. Taupin.

We cannot make any general statement from these figures, as to the proportion of cases of typhoid in which hæmorrhage from the bowels occurs. Adding up the whole list of *fatal* cases, observed in London, Paris and this country, we find that this symptom was present in about $\frac{1}{8}$ of these fatal cases (or 1 in 7.7). Adding up the cases, fatal or not, observed by Jackson and Flint in this country, and at our hospital this autumn, we find that it occurred in about $\frac{1}{11}$ of all, or 1 in 10.77 (cases below the age of 15 excluded).

As hæmorrhage may sometimes be overlooked, where the dejections are not constantly examined by the physician, its frequency is liable to be understated rather than exaggerated. Some allowance ought also to be made for cases of concealed hæmorrhage. I have alluded to such a case reported by Chomel. Andral relates the history of a man, aged 28, who had had diarrhœa three weeks before entering the hospital, lived in hospital 18 days, growing weaker, but passing no blood. After death, it was found that the lower two-thirds of the small intestine were filled with dark blood, much clotted; none had passed the ileo-cœcal valve.

II. As to the *fatality* of this accident, or its influence on the mortality of the disease, it is difficult to get adequate statistical evidence. The interest taken in the morbid anatomy of typhoid fever has drawn special attention to fatal cases, especially in the clinical reports of the earlier French observers. I had supposed that this symptom was one of very grave import, and have been surprised at the amount of testimony to the opposite effect given by physicians of very large experience.

Of 6 cases reported by Flint, 5 recovered, though in one the hæmorrhage was so profuse as to cause syncope and loss of pulse at the wrist for several hours.

Of Dr. Jackson's 31 cases at the Massachusetts General Hospital, 20 ended favorably. He remarks, in his report on cases observed at that hospital, from 1821 to 1835, "In some instances, the hæmorrhage was followed by relief, and in a few by well-marked and permanent relief. But in most, there was great weakness and sense of exhaustion in consequence of it."

Dr. Sutton, of Kentucky, in a paper on this disease, says he remembers 10 cases where hæmorrhage occurred, and death followed in only 2; and in a note he adds, "Since writing the above, I have seen several other cases, but no death." Dr. Elisha Bartlett says that he had seen as many cases end in recovery as in death. The two recent patients at our hospital both recovered.

Graves, Trousseau and Austin Flint, three physicians of great experience, representing Ireland, France and this country, agree that, though hæmorrhage is sometimes directly fatal, and sometimes helps to induce fatal prostration, still it does not, on the whole, add materially to the fatality of typhoid fever. Trousseau does not give the number of his cases, but quotes three where recovery followed copious hæmorrhages, as well as three illustrative cases of death which he had seen within seven years. In one, the bleeding occurred on the 12th day, a large quantity of dark, fluid, very fetid blood being passed; it was repeated the next day; from that time the symptoms became sensibly less severe; the patient was convalescent in about a month from the beginning of the disease. In another, three large, bloody dejections occurred on the 24th day; "immediately after, I observed a marked improvement; in the evening, it was noted that the fever was moderate, that there was no abnormal heat, that there was an appearance of greater comfort, and a desire for food." Next day, "the pulse, till then above 120, had come down to 80." Three days later, there was again interstitial hæmorrhage, with epistaxis. Speedy recovery followed. The case reminds one of a remark of Sir Henry Holland, that hæmorrhage sometimes forms a crisis to this disease.

The French physicians who taught in the Paris hospitals more than twenty-five years ago regarded this symptom as a very grave one. Chomel said, in his lectures: Of 7 cases where these hæmorrhages were observed at Hotel Dieu, in 6 the disease was fatal; one recovered after large loss of blood. But the death is not commonly the immediate effect of this loss; of the 6, in only one was death notably hastened by bleeding.

I am afraid that this difference in results was partly owing to treatment. A large part of Chomel's patients were bled very soon after entering the hospital, when they had in most instances been sick already some days. For high fever or delirium, leeches behind the ears were frequently ordered afterward. The published cases do not show that these symptoms were relieved by taking blood. The diet was meagre.

The extent to which this depleting practice was sometimes carried, and the effects it produced, may be illustrated by these remarks of M. Andral, in a debate at the Academy of Medicine: "At one period of my medical life, I, too, used to bleed very largely [in typhoid fever]. I made not less than three, four or five abundant bleedings, near to one another, and to some individuals I had not less than two hundred leeches applied, for I was convinced it was necessary to attack congestion wherever I saw signs of it. Do not ask me what were the results of this practice. Habitually, after large bleedings, I saw the nervous symptoms increased, subsultus more marked, delirium more unyielding, and hæmorrhages more frequent. I may say the same of pneumonia. I have seen patients who, after one or two bleedings, fell into prostration, breathing became more labored and noisy, expectoration was suppressed and death ensued. I may say the same of erysipelas, &c."

There is some reason to think that the fatality of this accident increases with advancing years. In 22 cases of hæmorrhage, where the age was noted, the average age of the 9 who recovered was $24\frac{67}{100}$ years; of the 13 who died, $29\frac{54}{100}$, a difference of nearly five years.

III. Intestinal hæmorrhage may take place at very various *periods* in the course of typhoid fever. The earliest appearance of it that I have seen recorded is in the following, from Andral: "The person had been sick only three days, and for that time had a febrile movement with not very strongly marked symptoms, when, suddenly, after some griping pains, he passed at one time more than a quart of blood. After this, he had a prolonged syncope. . . . The hæmorrhage was not repeated, and the patient went through the usual course of a typhoid fever, which ended favorably."

Todd gives two cases, one occurring on the 5th, and one on the 7th day after the date from which the fever might be considered to have begun. Both patients recovered. Each lost about a pint at one time; and in one, blood continued to pass. Both were very much prostrated afterwards.

Including these, I have represented in the following table the date of first appearance of hæmorrhage in 26 cases, half of which were fatal. Of course, the beginning of the fever often cannot be determined to a day.

Day of fever when hæmorrhage first appeared.	*Recovered.*	*Fatal.*	*Total.*
3d–8th (or 1st week)	3	0	3
9th–15th (or 2d week)	4	4	8
16th–22d (or 3d week)	3	5	8
23d–29th (or 4th week)	2	4	6
32d	1	0	1
	13	13	26
Before end of 2d week,	7	4	11
After beginning of 3d week,	6	9	15

IV. This inquiry as to the period at which this symptom may occur leads us to ask on what *local conditions* it may depend. The leading features in the morbid anatomy of typhoid are well known. Rokitansky describes them as presenting four stages, which may be briefly indicated as follows: 1. Congestion in the mucous membrane. 2. Swelling of the glands, which he speaks of as typhus infiltration or deposit, in which period congestion retreats to, and becomes localized in or around the gland-patches. 3. Softening and elimination, when the labor of throwing off the local results of disease produces a new or secondary congestion, the vessels of the mucous membrane becoming filled with dark and viscid blood. 4. Ulceration.

Sometimes the glands slough and are thrown off in mass, involving a variable depth. In the Warren Anatomical Museum is a specimen, showing ulceration of Peyer's patches just above the ileo-cœcal valve, and a small slough hanging from one of them. Blood was found in the intestine below the slough, but none above. This man died about an hour and a half after symptoms of internal hæmorrhage began, having meantime had a profuse discharge of blood.

Here, then, are three conditions of the mucous membrane in this disease, either of them liable to cause bleeding, intense congestion, ulceration, occasionally sloughing. We might suppose that bleeding would be less dangerous, more likely even to be salutary, in the congestion preceding ulceration, and the few facts just given in the table tend to confirm that idea. In some cases—it is impossible to say how many—hæmorrhage is probably a natural relief to the overloaded vessels, analogous to epistaxis.

When the death of Dr. Swan, on the 12th day of his fever, was related, I thought it was too early for ulceration probably to have begun. But a reference to recorded cases shows the truth to be otherwise. Murchison, of London, says ulceration generally begins about the 9th or 10th day.

The earliest autopsy of typhoid fever I have read of was by Chomel, the patient having died on the 7th day. The man was 22 years old, attacked Jan. 16th, entered hospital Jan. 20th; had had headache, fever, diarrhœa, and was attacked that night with violent delirium; 21st, had delirium, full, hard pulse of 110; dry tongue, sordes on teeth, rosamina. Was bled. Next day was in muttering delirium; had ceased to answer questions; tongue and teeth in yet worse state; no diarrhœa; involuntary discharges of urine. Twelve leeches behind each ear were ordered; they bled freely, and that evening he died. Several elliptical patches were found, swollen so as to project into the cavity of the bowel, some near the valve even pediculated or mushroom shaped. The projecting patches were pale, the mucous membrane around them very red, in some places livid. There was no ulceration.

Louis gives three autopsies of death on the 8th day. Two presented slight ulceration near the valve—in one near the centre of the patch nearest the valve, in one occupying solitary glands. The third had some thinning of mucous membrane over thickened patches, but it was nowhere quite destroyed. In an autopsy of the 10th day, there were some ulcers two or three lines broad. One patient died of perforation the 14th day.

Chomel gives nine autopsies of deaths within the second week. Of these, 4 presented no ulceration; two of these deaths were on the 8th, one the 11th, one the 12th day. Five did have them; these died, one on the 9th, one the 10th, two the 12th, one the 13th day.

Dr. J. B. S. Jackson says that in one of his autopsies, ulceration had not begun on the 17th day.

On the whole, then, if Dr. Swan died of hæmorrhage with ulceration on the 12th day, there was nothing extraordinary in it.

V. Finally, on the practical questions of *diagnosis* and *treatment*, I have only two remarks to make.

In concealed hæmorrhages, or before blood appears externally, bleeding may sometimes be suspected from sudden weakness, paleness or sinking, not explained by diarrhœa, nor accompanied by the pain of perforation. The temperature is often remarkably lowered; in two cases mentioned by Dr. E. A. Parkes, sinking to 93° at morning. Niemeyer remarks, "Hæmorrhages, if abundant, often betray themselves before the appearance of blood in the dejections, by the collapse of the patient, accompanied by a sudden fall of his temperature, and occasionally by a clearing of the intellect."

The oil of turpentine has served me, as it has many physicians who have written on typhoid fever, better than the ordinary astringents in checking this hæmorrhage.

AGORAPHOBIA AGAIN.

By S. G. Webber, M.D. Harv.

Except that a very able article on this subject has just been published in the *Archiv f. Psychiatrie und Nervenkrankheiten*, vol. iii. 3, containing an analysis of 29 cases, I should not have referred to this subject again.

Dr. Williams considers this symptom simply as a form of vertigo. Vertigo is "a state in which it seems that all objects are turning round; or that the individual himself is performing a movement of gyration." Dunglieson. "The sensation of moving, or the appearance of moving objects without any real existence of movement." J. Spence Ramskill, in Reynolds's System of Medicine. So others might be quoted; but in all the idea of circular motion is mentioned as a prominent characteristic. A person subject to vertigo might dread to cross a street alone, but why he should have a similar dread when sitting in a crowded theatre, is not so easily explained. However, there is no question of vertigo in these cases. Three patients, whom I have seen since writing my last article, expressly deny that there is any sensation of dizziness or any swimming of the head. One of these could not cross a public square, was obliged to turn back and could not walk on the sidewalk next the square, but had to cross the street to the opposite side. Another, when at a concert or theatre felt oppressed or stifled, not from the close air of the room—for the same sensation was felt in a crowd in the street—but a sense as of want of breath, and she thought she should faint if she gave way to the feeling; her heart beat violently. The third patient was not dizzy except when she had a severe headache. She, however, had the sensations called agoraphobia on crossing a street or a square to to such a degree that she would be obliged to come to a stop and wait a few minutes before proceeding. She expressly said she was not dizzy at such times, and did not think of being dizzy.

I have seen patients in whom the vertiginous motion seemed to be around the longitudinal axis of the body; another in whom it was around an axis perpendicular to this axis, so that when upright, objects seemed to revolve over his head. Again, I have had a patient who complained of an undulatory sensation when walking, as though he were on board a ship. Another has complained that the ground seemed to rise to meet him as he stepped, which may be the same as the last, differently described. I can understand how any of these sensations may be spoken of as a form of vertigo; but when there is no sense as of motion, no swimming of the head, I do not see the propriety of using the word vertigo, or even the expression, "a form of vertigo."

Dr. Williams objects to the name of agoraphobia, and that, for consistency, appropriate classical terms ought to be given to dread arising under other circumstances, as ecclesiaphobia. Inasmuch as αγορα means not only a market-place, but also an assembly of people, the term agoraphobia would seem appropriate for the dread of crossing a square, or dread of being in a crowded room.

Dr. Williams has attempted to weaken the importance of the symptom we are considering, because it occurs in connection with other symptoms. If a person knows what vertigo is, he would be less likely to confound it and agoraphobia; because he has fits of an epileptic character, it does not follow that agoraphobia is epileptoid.

In each of the cases criticized, there were causes operating which might well produce the condition of irritable weakness or nervous erethism to which Dr. Cordes refers agoraphobia as a symptom, and it is not at all singular that other symptoms should be present referable to the same condition.

Dr. Williams does not describe the nature of the uneasiness to which he is subject under certain conditions accurately enough to render it certain whether he has ever experienced the sensation referred to as agoraphobia. In view of what he says, I can only suppose that he is not personally acquainted with it, and therefore has mistaken his sensations for it; it would also seem that he has not met persons suffering from this symptom or has not carefully questioned them in regard to their sensations. Otherwise, I do not see how he should confound it with vertigo.

However, Dr. Cordes touches upon all the points which I wish to mention.

Dr E. Cordes prefers the name Platzangst to Agoraphobia. He says that some years ago, while greatly exhausted, he was himself suddenly attacked with a feeling of very great mental fear while in a crowd of persons at the theatre, against which the strongest effort of the will was unable to contend successfully, and he was obliged to leave the theatre. He also subsequently had the sense of fear on crossing a wide place. Improvement followed on reëstablishment of the general health.

Platzfurcht he is firmly persuaded should be looked upon not as a clearly specific disease, but it represents only a precise species of certain psychical sensations of terror, of varying import, which are more or less similar, not differing in their quality, but only in their intensity, and all having the same cause; not that the notions and groups of ideas are always exactly the same—this would be psychologically impossible—but the train of ideas called forth is in the same circle of conceptions, united with nearly the same feeling of fear. The sense of terror in its lowest grade is shown only in the idea of fear lest some undefined evil should occur, the account of which differs according to the sensations of the patient, but is rather subacute. This lowest variety of fear increases partly intellectually, partly corporeally, while the one gives rise to ideas of terror, as also the other excites a sensation, not mental but bodily, until the whole mind is thrown into such anguish by this undefined something, this threatening terror, that strong reflex influence is exercised over the motor faculties. Excessive palpitation is added thereto; an indescribable præcordial anxiety, oppression of the chest, efforts for breath, sensations of heat, alternating with cold and shivering, variations of temperature are present. A multitude of abnormal sensations run through the body and naturally increase the anguish still more; these sensations are especially like syncope; sense of diminishing power, as well bodily as mental. Soon pains darting through the head, dimness or glimmering before the eyes, sounds in the ears, nausea, a feeling like an aura rising from the stomach, weakness in the limbs or in groups of muscles in other parts of the body, formication, sense of flushing, &c., are mingled confusedly together, and excite the most indefinite succession of ideas, which end and culminate in the sense of indescribable anguish.

In the lower degrees of this sense of agony the will can overcome it; as it becomes more severe, however, it overpowers the will and the body dominates the soul. In this condition every impression upon the nerves of sense excites powerful reflex conditions. He considers the platzangst as only one variety of this sensation of psychical anguish, which arises nearly always in the same way.

The feelings and sensations which the patient experiences during or before crossing a large square are never analogous to vertigo; never is there a feeling as if the patient or surrounding objects turned round; never is there apparent motion, but always he feels a sense of powerlessness, as if he could not go forwards, as if chained to the ground, and from this arises the fear of inability to cross the place. This anxiety increases sometimes to such a pitch that genuine reflex paresis results, and there is momentary inability to perform coördinated motions of the legs. If the patient can control himself sufficiently to go slowly and retard his motions, instead of trying to overcome the paresis by rapid walking, he sees that he has not lost power over his limbs, that the anxiety was unnecessary, and he becomes quiet and can then cross the square.

Agoraphobia is caused by associations of ideas derived externally; it is not a disease by itself, but only a symptom, whose basis, in common with that of other similar symptoms, we must seek. At the foundation of these sensations of anxiety lies one common, or at least similar, corporeal cause. They occur in a certain pathological group, including what may be expressed by the name nervous irritability, erethism, irritable weakness. As yet this is a very unprecise term; by it may be understood an increased impressionability for irritations, as well of the peripheral sensitive nervous system as of the organs of sense, which are so reflected upon the central nervous system that not only the psychical but also the entire nervous system, the motor, vaso-motor and trophic may be thrown into extreme commotion, followed often, not always, by great exhaustion. The causes which call forth this changed centripetal and centrifugal nervous conduction, may vary; whether the anatomical basis varies equally is as yet unknown to us, and will remain unknown until we have more data. Yet each step which we take in the more correct grouping and classification of single symptoms belonging to nervous weakness marks an advance which brings us nearer a knowledge of the anatomical basis.

Cordes gives the histories of three patients as examples of the three groups:—1st, where the anxiety is felt in the presence of large numbers of people; 2d, when alone; 3d, agoraphobia proper.

He finds that all the 29 patients suffered from a, so-called, irritable weakness; that they all, under certain conditions, had a sense of anxiety or terror; that the causes through which the nervous erethism arose may be referred to a few, chiefly three, divisions:—1st, mental over-exertion; 2d, dissolute life; 3d, chronic gastric disturbance.

The same symptoms will not invariably follow every cause of debility. There seems to be one symptom which forms the characteristic difference between exhaustion caused by dissipation, mental over-exertion and gastric disturbance, and the exhaustion arising from other causes. This symptom is *tremor*, from which all the patients under consideration suffered.

Tremor must be considered as an excess of muscular action which easily passes into a deficiency of muscular action. It may arise from over-irritation of peripheral nerve-endings, in the reflex centres or in deficient action of the will. In all the patients whose cases are included in the table, and whose affection depended upon the three causes above mentioned, the tremor depended upon defective impulse of the will. This tremor is not like that which is seen after typhus or after extreme bodily exertion. These patients can take long walks without being tired, can stand for hours without trembling, can work half the night and lie without sleep the other half, and the next morning show no sign of trembling. So soon, however, as certain groups of ideas seize their minds, a severe tremor appears, against which every resistance is powerless, which, with the invariably accompanying fear may even cause paresis.

It seems to be characteristic of this action of certain exhausting irritations that the control of the will over the motor centres is disturbed. It would seem also that in such cases there is a pathological change, as yet unknown, in that part of the brain which is concerned not only with locomotion, but also with general muscular sensibility, so modifying the mind that after the sensation of fright, a tremor may arise and, in the highest-degree, a paresis of the muscles. This sensation of mental terror is never found with the tremor after typhus.

Agoraphobia is a variety of functional paralysis which, neither in its import nor in its grouping of symptoms, nor in its effects, is anything else than a certain degree of intensity of the mental terror before referred to.

One patient represented that seeing a large crowd on the ice he became suddenly dizzy. On more careful questioning, it was found that there was no dizziness, no semblance of motion in surrounding objects or in himself; but on account of a succession of sensations resembling faintness, dimness and glimmering before his eyes, instability of the legs, &c., he was overpowered by the thought that it would be impossible to pass over the smooth ice and among so many persons.

The sense of terror here described differs essentially from the stomachal vertigo described by Trousseau. An important diagnostic mark is that this sense of terror arises from the same circumstances, in a wide place, in the midst of a crowd, as when alone; it may also be voluntarily excited, which is not the case in stomachal vertigo.

In all the cases the eyesight was intact; in none was there an epileptoid condition or true epilepsy. True paralysis or paralytic symptoms did not appear apart from the condition of terror. In most cases—all except four—the nutrition was good, the muscles being compact and firm, exertion did not cause weariness. Men were chiefly affected; one woman only had the disease, and she had also Basedow's disease; the patients were in the vigor of life, and from the better classes. It was not uncommon for the patients to fear lest they should become insane, or should die suddenly. All, however, recovered.

Progress in Medicine.

REPORT ON SURGERY.

By J. Collins Warren, M.D., Boston.

(Concluded from page 434.)

Ovarian Tumors: their Pathology, Diagnosis and Treatment, especially by Ovariotomy. By E. Randolph Peaslee, M.D., LL.D.

In the chapter on the classification and pathological anatomy of ovarian tumors, we find the following varieties mentioned:

I. Solid ovarian tumors consisting of, 1, Enchondroma; 2, Osteoma; 3, Carcinoma; 4, Papilloma; 5, Fibroma of the Corpora Lutea or of the Stroma.

Carcinoma of the ovary is placed among the rare forms. The encephaloid form is said to be the most common, but it is considered by the author to be less so than scirrhus. Cancer is said usually to affect both ovaries. Spencer Wells has seen but three cases in his first four hundred cases of ovariotomy, and the author has seen but two undoubted and two strongly suspected cases in over two hundred. In regard to colloid cancer, he says, "no amount or variety of consistency of colloid contents of an ovarian cyst demonstrates its malignant character, and the expression should be dropped."

II. Of cystic ovarian tumors there are three classes: 1, Hydrops Folliculorum; 2, Cystoma Ovarii; 3, Dermoid cysts.

The most frequent form is the cystoma, which is subdivided into Struma, Oligocysts and Polycysts. The term oligocystic is used instead of monocystic, as the occurrence of a tumor originally monocystic is extremely rare and incapable of demonstration, and in most cases is derived from the oligocystic form, which consists of a limited number of cysts. This form has an entirely different origin from the polycystic, and is far less likely to become adherent to parts and organs in contact with it. Struma ovarii is a very rare form. In oligocysts the abnormal development of the papillæ may be mistaken for medullary cancer, particularly if the cyst bursts when we find the papillæ projecting from the collapsed cyst, and increasing in length and size. The multilocular or polycystic cystoma seldom affects both ovaries. If the contents be removed by tapping, they are more speedily reproduced, and the mass grows more rapidly than in the case of the oligocyst. Dermoid cysts generally affect but a single ovary and are single cysts. They do not grow so rapidly nor attain generally to such dimensions as the cystomata previously described, being seldom larger than an adult's head. They almost always present a secreting surface within, in addition to the dermoid portion, so that their contents are always to a greater or less extent fluid. "Of all the forms of ovarian tumors the fibroma constitutes decidedly less than one per cent., and may be stated at one-half per cent.; the true monocyst constituted three per cent. in Dr. Keith's cases; the dermoid cyst may be estimated at one and one-half to two per cent.; the oligocyst at thirty-eight per cent., and the polycyst at fifty-seven per cent. Carcinoma is about as frequent as fibroma."

The duration of growth is about two years for polycysts, and two and a half or more for oligocysts. Adhesions are always more common, more extensive and more vascular in polycysts than in oligocysts.

In regard to their origin, the oligocyst commences as a dropsy of the ovisacs, and may practically be considered simply as a larger development of the hydrops folliculi, and the polycyst as a colloid degeneration of the ovarian stroma. The dermoid cyst originates very early in embryonic life by a displacement of a minute portion of the outer layer of the blastodermic membrane, so that it enters into another part or organ. Congestion or inflammation of the ovary may be reckoned among the exciting causes of cystoma ovarii, and the non parturient condition among the predisposing causes.

Among tumors often mistaken for ovarian cysts, are mentioned cysts of the broad ligament, hydrosalpinx (dropsy of the Fallopian tube), and uterine fibro-cystoma.

In regard to the medical treatment of ovarian tumors, the author remarks: Since the cysts increase more rapidly after the patient's health becomes decidedly impaired, much may be done by appropriate medication in the way of sustaining the general health during the growth of the cyst.

Paracentesis abdominis may be employed as an aid to diagnosis, as palliative treatment, or with a curative intention when followed by other treatment. Tapping an ovarian monocyst is not a dangerous operation, but tapping a polycyst is very dangerous, and should never be performed except for diagnostic purposes, the dangers being liability to hæmorrhage and inflammation, and peritonitis resulting from the extremely irritating character of the fluid of the polycyst. In regard to prognosis, the polycyst may be said to be as fatal as any malignant disease. The dermoid and oligocyst require a somewhat longer time to exhaust the vital force.

The surgical treatment may be either palliative or curative; the former consists of tapping per parietes abdominales or per vaginam. Among the various forms of surgical treatment, tapping followed by injections of iodine has been employed by some surgeons. It should be employed only in cases of monocyst without complications of any kind as to its walls, and therefore in its first or second stages, and then only in exceptional cases. Tapping, followed by maintenance of a permanent opening into the cyst, particularly per vaginam, as recommended by Dr. Noeggerath, is of the highest value in those cases of ovarian cyst, to which, on account especially of adhesions, ovariotomy is not applicable. Dermoid cysts may be also treated in this way.

Ovariotomy is the only curative procedure to be recommended for all ovarian cysts which have passed beyond the commencement of the third stage, and for polycysts at any stage if found to be undermining the general health. It may also be employed for all solid tumors and all dermoid cysts. Ovariotomy, in well selected cases, is not comparatively a dangerous operation, ninety per cent. recovering in the hands of experienced operators. According to Billroth, its danger is about the same as that of amputation of an arm, excision of the shoulder, lithotomy in the young and similar operations.

The operation should not be performed until the general health has become somewhat impaired. According to Spencer Wells "patients in full health do not do as well as those accustomed to an invalid life." Many other weighty reasons are given by the author for deferring the operation until this time. It is also desirable to wait, *cæteris paribus*, till the abdominal walls have been decidedly thinned by the development of the tumor; a thickness of more than one inch being very undesirable. The operation has never succeeded in large hospitals so well as in private practice, but in small hospitals the success is about the same as in private practice. The account of the different steps of the operation is remarkable for its clearness and the thoroughness of its detail. We cannot attempt to enumerate in a report like this, many points which we should be glad to call attention to. The length of the incision has varied from time to time greatly. The author lays down three inches as the length to begin with, which may be prolonged if necessary. The opening into the peritoneum should at first not exceed one and one-half inches. The author describes, in addition to Mr. Wells's trocar, a very ingenious instrument devised by Dr. Mears, of Philadelphia, but prefers himself to use a simple trocar from three to five lines in diameter. If the adhesions are extensive and intimate, the fibrous layer of the cyst should be separated from the peritoneal covering, which should be left in contact with the viscus, to which it is attached. Cases in which the lower portion of the cyst occupies the whole pelvis, and is everywhere adherent to the contiguous organs, have generally been abandoned. Even these will be found manageable by following Dr. Miner's method of enucleation. As there will almost certainly be some oozing after the incision is closed, in these cases, it is judicious to leave a bougie passing up the vagina and through the roof of the latter into the peritoneal cavity, to afford proper drainage. No less than twenty odd methods of treating the pedicle are enumerated and described, and the comparative merits of the ligature and clamp are discussed at length and with great fairness. Dr. Peaslee uses a double ligature; if, however, the pedicle is over six inches wide, he divides it into three portions. The pedicle should be allowed to fall into its normal condition, the ligature being cut close to the knot or otherwise. Metallic or silk sutures may be applied, and it is important that the peritoneum and the recti muscles should be included within the suture. In concluding his very admirable account of this important operation, he justly lays great stress upon the fact that success does not depend upon the performance of any single step of the operation, but on the bestowal of the greatest care upon all its details. Equal care and skill are required, in complicated cases, in the after treatment, which it is very desirable should be directly supervised by the operator himself. We may add in conclusion that great thoroughness is shown in Dr. Peaslee's treatment of all the details of this very admirable work, which from the very attractive and readable form in which it appears, is likely to do much good in the way of spreading a more general knowledge of the importance and advantages of this operation than exists at present.

General and Differental Diagnosis of Ovarian Tumors, with special reference to the operation of Ovariotomy. By Washington L. Atlee, M.D.

This book is divided into two sections, Section I. consisting of one chapter only, and being devoted to the general diagnosis of ovarian tumors. We find here many points of interest, but have space for the mention of a few only. "One of the most important means of diagnosis is tapping. It generally affords us undoubted information of the presence or absence of ovarian disease, aids us in detecting adhesions and in deciding upon the true character of the tumor." Ovariotomy ought never to be performed by the inexperienced surgeon without previously resorting to tapping as a means of diagnosis. A large trocar should be employed, for even with the largest sized canula it is sometimes difficult or impossible to draw away the fluid in consequence of its viscid character. The point to be selected for tapping is the linea alba, at a point from two to four inches below the umbilicus. A rare complication may be met with when the tumor has formed adhesions with the bladder, and dragged it upwards towards the umbilicus. The examination of the bladder with a sound would render the accident of puncturing this organ in tapping impossible. It is well to incise the cutis with a sharp bistoury and puncture through the wound. This diminishes the pain and enables the wound to heal readily.

Section II. contains twenty-one chapters on the differential diagnosis, each chapter being devoted to a particular condition liable to be mistaken for ovarian tumors. Chapter twenty-two is on adhesions. In regard to these he says: "I think the large mass of the profession is at a fault in magnifying the importance of adhesions, and in dreading to encounter them . . . Indeed, it is surprising to see how rapidly a patient will sometimes recover after a most desperate operation, involving to a great extent the most vital abdominal organs." Adhesions are not likely to exist if the tumor has originated without pain, if, when small or reduced in size by tapping it is found to be movable, if deep inspirations are accompanied by downward motions of the tumor, if the functions are all properly performed, or if a vaginal examination shows the pelvis to be free from an unyielding tumor. Ovariotomy in such a case offers better results than any other established capital operation in surgery.

Adhesions may be parietal, omental or visceral. Parietal adhesions may be produced by inflammation, or by pressure from the enormous size of a growth or from tight bandaging. Visceral adhesions are the rarest and most fatal complications of ovarian tumors. The intestinal canal is the organ most frequently implicated. The presence of visceral adhesions should not positively forbid an operation.

Chapter twenty-three is a valuable contribution to this work, by Dr. J. Ewing Mears, on the pathology of cystic tumors of the ovary. The most frequent encysted tumors of the ovary, among those examined, were the multilocular or proliferous variety; the next in number were those known as the multiple; and the most rare were the simple or unilocular cysts. Under the name of multiple cyst is described that form of cyst which is simple in character and differs from the multilocular variety in the respect that there is a development of more than one cyst in the substance of the ovary. The multilocular differs from the simple and multiple cysts in that it embraces a class of cysts composed of one large or parent sac, with numerous smaller cysts developed within or upon its walls. Within the smaller or secondary cysts there may be developed a third order. Ovarian cysts may originate in simple dilatation of a Graafian follicle from cells or nuclei, or in the areolar spaces, the first being the frequent form of origin. "In the interruptions to the proper completion of ovulation, whether due to hyperplasia of the tunics of the ovary or to the non-development of the ovisacs, we think is found, to a great extent, the cause of the cystic degenerations of the ovary."

In the examination of ovarian fluids by Dr. Drysdale, it is found that the chemical constituents of these fluids are almost the same as those found in other dropsical fluids, but differ from them, however, in the excessive quantity of solid matter which they contain. The microscopic examination of ovarian fluids shows that, no matter what other cells may be present or absent, the cell which is almost invariably found in these fluids is the granular cell.

Ovariotomy by Enucleation, without Clamp, Ligature or Cautery. By J. F. Miner, M.D. *(American Journal of the Medical Sciences*, October, 1872). Dr. Miner first operated in this way in 1869. The case was one of extensive adhesions, from which the cyst was separated by enucleation, by which process the pedicle, although large and extending over a wide surface, was separated from its entire attachment to the tumor. The bleeding from the terminal branches of the vessels of the pedicle was not greater than that from the attachment elsewhere, and all hæmorrhage soon ceased. The patient died on the twenty-first day after the operation, but apparently not from hæmorrhage. The author and other surgeons have since practised this method successfully. He is of the opinion that all ovarian tumors, capable of removal, can be and should be removed by enucleation.

Normal Ovariotomy. By Robert Battey, M.D. *(Atlanta Medical and Surgical Journal*, September, 1872). Dr. Battey defines this to be an operation for the removal of the normal human ovaries, with a view to establish at once the "change of life," for the effectual remedy of certain otherwise incurable maladies. The case reported was one of amenorrhœa, treated for several years unsuccessfully, the patient's sufferings being so great that it was decided to remove the ovaries, which was effected through an incision in the linea alba. The base of the attachment of the ovaries was tied on each side by a double ligature, the ends of which were cut short. On the thirty-first day the wound had nearly healed. Comment on this truly heroic treatment is hardly necessary.

Antiseptic Treatment. Dr. Paul Güterbock *(Archiv für Klinischer Chirurgie*, xiii. 2, p. 272, 1872) gives a very elaborate account of the advantages and disadvantages of Lister's dressings, as observed in the Bethanian Hospital, at Berlin. Lister's complaint that his method is not always carried out is answered by the statement that the method has been frequently modified very materially. The Germans have not thought it proper to apply carbolic acid directly to the wound, owing to its cauterizing power, and use it only in the later stages of treatment and in a mild form, and even then the caustic action is not entirely avoided. Lister's later modifications have obviated this difficulty somewhat. The acid does not act deeply in the tissues when employed as a caustic to gangrenous and diphtheritic wounds, and moreover the appearance of the tissues after its application resembles strongly these diseases. It is not therefore to be relied upon for this purpose. Dr. Güterbock finds that the acid retards the healing process. There is but a slight tendency to a reactive inflammation as well as to cicatrization. One of the chief objections to the method is the rarity of healing by first intention when it is employed, one part to thirty being sufficient to prevent it. Prolonged application gives rise to excoriations and eczema in the neighborhood of the wound, remaining long after the wound itself has healed. These complications occurred, however, in comparatively few of his cases. Lister's plan was not successful in the majority of cases, and afforded no protection to hospital diseases. As proof of this statement the author describes thirteen cases of compound fracture, in three of which the wounds were so small that they might easily have healed with the ordinary dressing; the other ten showed all the disadvantages of compound over simple fractures. They were not exempt either from erysipelas or hospital gangrene. In the opening of cold abscesses no success was obtained in antiseptic after-treatment. He has had the best success in wounds and acute suppurations of joints and serous cavities. Injuries to the sheaths of tendons were also successfully treated in this way, but in phlegmonous inflammations and acute abscesses, he had no success. The general sanitary condition of the hospital was not improved by this treatment, as is asserted to be the case by Lister. In reply to the statement of Lister that this method shows a reduction in the percentage of deaths after amputation and resection, the author says that the results in the Bethanien Hospital at the time this treatment was not in vogue were quite as good as those given by Lister. This method has many disadvantages which are constant, while success attends this treatment only occasionally. Dr. Güterbock's treatment seems to have been faithfully carried out, and his article is therefore a valuable contribution to the literature of this subject. This is more than we can say of the very imperfect trials on which the majority of surgeons have based their opinions one way or the other. It is well known there are good surgeons who think that Lister's treatment has stood the test of trial.

James Cummings, in a prize essay on the antiseptic treatment, given by the university of Edinburgh (*Edin. Med. Jour.*, xvii. p. 985 [No. cciii.] May, 1872) reports favorably on Lister's method. He states that Lister during the first nine months of his service in the wards of the Edinburgh Infirmary had not a single case of pyæmia. Cummings also during the last two years and a half had not seen a case of pyæmia or hospital gangrene in his wards, although these diseases previously had occurred quite frequently.

Dr. A. Burger (*Arch. f. Klin. Chir.* xiii. 3, p. 432, 1872) publishes an article on the action of carbolic dressings on wounds already in the stage of suppuration. The cases occurred in a military hospital during the Franco-German war. In the severer cases the antiseptic treatment was employed. In compound fractures, when the wounds were in bad condition and there was considerable fever, this mode of dressing was attended with the most satisfactory results. Although he is far from believing that this was solely due to the method employed, yet it is quite evident that a portion of the patients, at least, owed the preservation of their limbs and their lives to this method, which was also very effective in preventing the appearance of pyæmia, erysipelas, and hospital gangrene. (*Schmidt's Jahrbücher*, 1872, No. 5.)

M. Ollier's Occlusive Dressing (*Medical News and Library*, October, 1872).—In the last two numbers of the *Lyon Medical*, M. Poncet brings forward some new illustrations of the great advantage attending the employment of M. Alphonse Guérin's mode of dressing wounds with cotton, and associated, as recommended by M. Ollier (*Medical Times and Gazette*, May 11, p. 547), with the silicate bandage, so as to constitute what the latter surgeon terms *occlusion inamovible.* The object of these papers is, however, not to set forth the general advantages of this plan, which have now been made pretty widely known, but to show its great utility in warding off those hospital complications which have so often excited terrible effects—pyæmia, erysipelas, and hospital gangrene. During the last *semester* more than one hundred of the *bandages ouatés-silicatés* have been applied in M. Ollier's ward (containing one hundred patients) to every wounded surface, and not one of these patients has succumbed to pyæmia or been attacked by erysipelas. The bandage in these cases has been kept on for a week or a fortnight, and sometimes three or more weeks; all accidents by such retention being guarded against by paying attention to the pulse, temperature and feelings of the patients. The bandage has had to be removed wholly or in part in a few cases, on account of the imperfect way in which it had been applied. In all cases, wherever possible, such removal has not been performed in the ward where the other patients were; the wound being also kept exposed for the shortest possible time; and the quite new, fine cotton taken only from the parcel as wanted. The portion of this brought in immediate contact with the wound has usually been impregnated with carbolic acid or alcohol. In this mode of dressing the minutest details must be observed, and the great object of exclusion of air can only be attained by the superposition of several thick layers of cotton, which must reach very far beyond the surface of the wound. Thus, after an amputation of the leg, it does not suffice to cover the stump with the silicated bandage, but this must also comprise the thigh and the trunk. Without such precautions it becomes a bad mode of dressing, retaining pus which has undergone change from action of the air in contact with the wound. Before the bandage is applied, as many arteries as possible should be secured, and for this purpose the wound should be left exposed for fifteen or twenty minutes.

It is a means especially adapted for hospital practice, and is not required in cases treated in localities where the air is not likely to be contaminated. The cases M. Poncet relates were also treated in the winter; but in summer the dressing may have to be renewed every five or six, instead of every fifteen or twenty days.

Torsion (*British and Foreign Medico-Chirurgical Review*, July, 1872).—The application of torsion of the larger arteries does not gain favor with the profession, and is probably due to the natural fears and dread of insecurity of the plan. Nunneley, in his address in 1869, on "Surgery," says: "I must say I could not twist a large artery and lie comfortably in bed the next night, lest, while I slept, the elastic artery should untwist itself and my patient bleed until he slept never to wake again." This dread is proved most incontrovertibly to be a truly false alarm. At Guy's Hospital, a ligature is seldom or never used; torsion is practised with unparalleled success. We have applied torsion to the subclavian artery in amputation of the shoulder-joint, and without failure; but we should not be disposed to attempt it again, as the artery is too loose and the twist is not confined to the lower part of the artery, the artery requiring to be drawn out and held at some distance in order to apply the torsion properly.

Lister prefers the antiseptic catgut ligature for securing vessels, and in his address on surgery (*British Medical Journal*, Aug. 26, 1871) he says: "Although I have used nothing but this ligature for securing vessels in wounds for more than ten years, excepting torsion, which I comparatively rarely resort to, and though in certain classes of cases putrefaction cannot be avoided, in no instance have I seen the catgut knot come away, nor have I ever known secondary hæmorrhage or abscess by its use."

The antiseptic catgut ligature for arteries, introduced by Prof. Lister, is one of the most important additions to the progress of surgery; its use is still in its infancy, and great results are anticipated in its application to the larger trunks, where the silk ligature has failed. He thus sums up its value: "It appears then that by applying a ligature of animal tissue antiseptically upon an artery, whether tightly or gently, we virtually surround it with a ring of living tissue and strengthen the vessel when we obstruct it. The surgeon, therefore, may now tie an arterial trunk in its continuity close to a large branch, secure alike against hæmorrhage and deep-seated suppuration; provided always that he has so studied the principles of the antiseptic system, and so carefully considered the details of the mode of dressing best adapted to the particular case in hand, that he can feel certain of avoiding putrefaction in the wound. For my own part, I should now without hesitation undertake the ligature of the innominata, believing that it would prove a very safe procedure.

"The catgut, as tied in the ordinary reef-knot, with the ends cut short, seems to me to be a perfect hæmostatic. It has all the simplicity and universal applicability of the ligature, with, at the same time, the virtual absence of any foreign body from the wound."

Strangulated Hernia. Since the occurrence of Dumarquay's case of strangulated hernia treated by puncture and aspiration (*Med. Times and Gazette*, June 1st), a discussion took place on this subject at the Société de Chirurgie, July 31st, 1872 (*Gazette Hebdomadaire*, No. 31, p. 555), at which a number of similar cases were reported. M. Henry reported several unsuccessful cases and asked for the indications and contra-indictions for this operation. An irreducible hernia of four days' duration was punctured on two separate occasions without in any degree diminishing its volume.

M. Verneuil reported a case of scrotal hernia strangulated for sixteen hours The hernia, habitually retained, came down very suddenly; as there was fluctuation, puncture and aspiration was tried and four hundred grammes of a rose-colored liquid were withdrawn. A hydrocele of the sac was found to exist. An attempt was then made at reduction under chloroform, without success. A second puncture did not diminish the size of the tumor, although a little gas and blood were withdrawn. A third puncture drew some blood. An incision was then made, and the intestine, being exposed, was found slightly livid in color, and perforated in three places, from which a little blood exuded. The intestine was reduced and the patient recovered. The puncture should not be resorted to in old strangulations, for perforation of a diseased intestine might entail disastrous results. The puncture had done no injury, but the intestine had been punctured three times to no purpose.

M. Panas had made two attempts at aspiration in hernia. In a woman with left crural hernia, a puncture with aspiration obtained fluid from the sac merely, about thirty grammes; a second puncture gave no result. The hernia was finally reduced by taxis. The strangulation had existed forty-eight hours. The patient died the following day. There was no autopsy, but it was supposed that a perforation of the intestine was followed by peritonitis. In a second case, puncture was first tried, and then kelotomy was performed and the hernia reduced with a fatal result. He concludes that puncture and aspiration are only useful at the beginning of the strangulation.

Mr. Bryant appears to be the first to have employed this method. A case is reported operated upon by him in 1871 (*Med. Times and Gazette*, August 3, 1872). Flatus but no fæcal matter followed puncture by a grooved needle. He thinks that puncture of the intestine may be freely resorted to in some cases with every prospect of success.

Dr. Léon Labbé reports a case of aspirating puncture to the *Lancet* (July 20, 1872). A man, aged 70, after coughing, perceived a tumor about the size of the fist in the right inguinal region. Two efforts at taxis were made without success. The strangulation being of only eighteen hours' duration, it was decided to puncture with a No. 2 needle. About two drachms and a half of a yellowish liquid immediately escaped, together with a quantity of gas. The tumor collapsed, and gentle pressure caused complete reduction of the hernia. No bad symptom of consequence followed, and the patient recovered (*American Journal Medical Sciences*, Oct. 1872, p. 551).

M. F. Ferrier read a case before the Société de Chirurgie, Oct. 30, 1872, of crural hernia in a patient 66 years of age; puncture with aspiration obtained a few ounces of liquid and a quantity of gas, and was followed by a diminution in size of the tumor, which, however, soon enlarged. Two more punctures were also without result. Kelotomy was finally performed successfully twenty-four hours after the beginning of the strangulation. The three punctures could not be found. The punctures with aspiration had not been successful, but also had not complicated the case.

A new Case of Extirpation of the Kidney, with remarks. By George A. Peters, M.D. (*New York Medical Journal*, Nov. 1872). The patient, a lawyer, aged 36, had suffered for two years, and at time of entering hospital complained of pain in right lumbar region shooting down into pelvis. A tumor occupied the region of the right kidney, and large quantities of pus were discharged with the urine. The tumor was punctured with Dieulafoy's aspirator, No. 2, and 3 ounces of clear pus withdrawn. Small masses of granular matter were found in the eyes of the instrument, supposed to be fragments of a calculus. The diagnosis was calculous pyelitis, and nephrotomy was performed nine days later. An incision was made six and three-quarter inches in length, extending from the lower border of the twelfth rib to the crest of the ilium, parallel to and three inches from the vertebral spines. No calculus was found. The kidney was much enlarged and filled with cavities containing cheesy material. The patient died, three days after the operation, of exhaustion, without any special symptoms of uræmic poisoning. In the *Deutsche Klinik,* 1870, a case of nephrotomy is reported by Simon. During an ovariotomy the ureter was accidentally cut, leaving a urinary fistula above the symphysis pubis communicating with the left kidney. Efforts having been made to establish a connection between the ureter and the bladder without success, the kidney was removed. The patient was able to sit up at the end of six weeks, but the ligatures did not come away until after the end of six months. Two other cases have been reported, both of which terminated fatally. *(Wurtenberg Correspondenzblatt,* No. 61.) *(British Medical Journal,* May 18, 1872.)

Puncture of the Bladder by Dieulafoy's Aspiration, with Description of the Instrument. James L. Little, M.D. (*New York Medical Journal,* Nov. 1872). The case was one of retention from enlarged prostate. A nick in the integument was made about an inch and a half above the pubes, and capillary trocar No. 2 was passed through the tissue into the bladder, and 800 grammes of bloody urine removed. The same evening a second puncture was made, and during the next four days twelve punctures were made; after this it was found possible to pass a catheter. Mr. Watelet states in a pamphlet ("De la Ponction de la Vessie á l'aide du Trocar et de l'Aspiration pneumatique," Paris, 1871):

1. The capillary puncture is an operation entirely free from danger.
2. In all cases it should be substituted for the ordinary hypogastric puncture.
3. The bladder may be punctured three or four times a day, and replace catheterism where that operation is impossible.

Traumatic Rupture of the Urethra; Puncture of the Bladder in the Hypogastric Region; External Urethrotomy; Cure.—De Bousseou. (*UnionMédicale,* 1872. No. 81). (*Centralblatt,* No. 36). A man 52 years old slipped and ruptured the urethra; a few weeks later the stricture was so tight that the finest bougie could not be introduced, and there was almost complete retention of urine. External urethrotomy was attempted, but in the thickened cicatricial tissue it was not possible to find the urethra, and the bladder was accordingly punctured above the symphysis, the wound in the perineum being kept open. On the fourth day after the operation a sound with a strong curve was passed through the tube of the trocar, into the bladder, and guiding it with the finger in the rectum, it was passed through the neck of the bladder into the urethra up to the lower end of the stricture. The end of the sound was now cut down upon from the perineal wound, and the urethra opened. The cure was rapid and complete. Four similar cases are reported performed by Chopart, Bascilhac, Voillemier and Wilms.

Experiments in Grafting Portions of Mucous Membrane from the Tongue and Cheek of the Rabbit and Ox, into the Human Subject.—Houzé de l'Aulnoit (*Gazette Hebdomadaire,* 11 Oct., 1872). One of the principal disadvantages of epidermic grafting is the pain caused by the removal of portions of skin for this purpose, being sufficient in many cases to prevent the patient from submitting to the operation, or necessitating the removal of portions of skin from the surgeon himself.

The grafts employed, 5 millimetres by 2 and 3 centimetres, were secured to the wound by bandages of muslin covered with collodion in their internal surface or at their extremities, or with cotton wool lightly held down with diachylon plaster. In certain cases they are retained by gummed taffeta or by thin plates of lead, always keeping up a gentle pressure. The author thinks it possible even to retain the graft by a very delicate suture. The conclusions he arrives at are:

1. Mucous grafts taken from the tongue or cheek of the rabbit, like human epidermic grafts, can be grafted upon man.
2. They can be applied to fresh or granulating wounds, but never during suppuration.
3. New researches are necessary to determine the best method of immobilisation, and the time when the fluid dressing should be removed, which is placed by the author at the second or third day.
4. At the moment that vascular connection is established, the epidermis is detached, the cutis vera becomes inflamed and softened, and loses its physiological properties, and becomes a true pathological tissue, having some resemblance to the cicatricial tissue, without its contractility.
6. Adhesion was obtained but five times out of fourteen, four cases being doubtful.
7. Two attempts with the tongue of the ox were negative, caused by the condition of the wound or the dressing.

M. Ollier, of Lyons, considers that the connective tissue, and not the epidermis, is the active agent in the graft, and objects to sowing a number of small epidermic grafts. He cuts them from 6 to 8 centimetres in length and they succeed very well; but it is inconvenient to procure such large grafts. He freezes the skin before cutting it away and finds that it still answers well, notwithstanding this assault upon its vitality. This is a veritable autoplasty, and the healed surface has a more persistent vitality than ordinary cicatrices. (*Brit. Med. Jour.*, *Apr.* 27, 1872.) (*Med. News and Library*, *Oct.* 1872.)*

Reports of Medical Societies.

SELECTIONS FROM THE RECORDS OF THE OBSTETRICAL SOCIETY OF BOSTON.

W. L. RICHARDSON, M.D., SECRETARY.

April 13th, 1872.—The President, Dr. Read, in the chair.

A case of Recovery from supposed Rupture of an Abdominal Tumor, followed by partial Peritonitis. Dr. Borland read the case.

The patient, a young married woman, 24 years of age, entered the City Hospital, August 22, 1871. She stated that she had given birth to two children, and afterwards had one miscarriage in August, 1869, when three months pregnant. She was at that time ill about one week. The catamenia reappeared the following month and continued regular till May, 1871, when, during an interval, she was taken with cramps in the abdomen, and thought she felt something like a "lump." This, with occasionally recurring cramps, continued for about two weeks, when all these symptoms disappeared after free catharsis. After May the catamenia appeared every two weeks, and were profuse, prolonged, and occasionally painful. She was taken with cramps again two days before entering the Hospital, and the day before her entrance for the first time felt a decided tumor in the right side of the abdomen.

At the time of her entrance (August 22) she was unable to lie on her left side; the skin was hot and dry. She complained of chilly sensations and much frontal headache; tongue covered with a white coat. No appetite, but great thirst. No dejection for four days previous to discovery of the tumor. Breathing chiefly thoracic, deep inspiration causing abdominal pain; micturition slow, at times a little painful but unaccompanied by any smarting. The catamenia had reappeared four days before entrance and were quite profuse. Pulse 120. Respiration 44. Thermometer 100½°. To the right of the umbilicus a tumor about the size of a child's head was evident on inspection. It was tender on light, but not on deep pressure, to which it gave a doughy feel, and seemed to yield somewhat. It was movable from side to side. *Per vaginam* the uterus and *cul-de-sacs* were free. There was no tenderness whatever.

The treatment was at first directed to relieving the intestines, and the bowels were freely evacuated in the course of thirty-six hours. She felt quite ill, with occasional attacks of cramps, and the temperature gradually rose till the morning of the 25th, when it was 102½°. From that time it gradually fell to the normal point.

August 31.—On deep handling, the tumor was felt to be about the size of a child's head and evidently did not extend into the pelvis. The uterus was movable, not attached to the tumor; the *cul-de-sacs* were free, and no local tenderness could be discovered. The sound entered 2½ inches, and its withdrawal was followed by a drop or two of blood.

Sept. 6th.—Dr. Sinclair, who examined her, reported that the uterus was not connected with the tumor, the former moving freely without motion of the latter. "Punctured with injection syringe, and bloody serum, containing pus corpuscles, was withdrawn—probably an old hæmatocele."

Sept. 10th. Patient was tapped with a small trocar and some ℥iv of a dark, sticky, serous fluid was withdrawn. This was of about the same consistency as soft soap, and appeared to contain, according to a microscopical examination made the following day, a considerable number of renal casts. The patient thinks that at each attack of this sickness she has passed bloody urine.

Sept. 20th.—Patient thinks tumor is again enlarging. It can be plainly felt and moved from side to side, though apparently attached to the right side. The uterus is flexed ante-laterally to the right, but movable. When the tumor is pressed firmly down towards the right iliac fossa, a fulness can be felt in the right *cul-de-sac.*

Sept. 28th.—The tumor can scarcely be felt by external manipulation, but patient states that she is growing larger, having to loosen her dresses.

Oct. 2d.—Tumor felt crowded down into the pelvis, from which it can easily be moved; as on the 20th. When the tumor is pressed down into the pelvis, the uterus is pressed down on to the floor of the pelvis, lying in about the normal axis, or a little anteflexed. When the tumor is pressed up under the ribs of the right side, the uterus is lifted and drawn a little to the left of the median line, without materially changing the position of the uterus. Uterus quite movable, sound entering three inches. Concavity forward.

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* Writers of papers on Surgery will contribute much assistance in the preparation of the semi-annual reports in this department if they will forward copies of their papers, addressed to this Journal.—Eds.

Oct. 14th.—Is up and dressed. Tumor quite perceptible to touch, but apparently no larger.

Oct. 18th.—Catamenia ceased after continuing about a week. Discharged relieved, to take position as assistant nurse.

Jan. 16, 1872.—Patient entered Hospital again for treatment. Reports that about a month after entering on her duties as nurse the catamenia came on with some pain, and again in another month. Since that time they continued up to the present time with only one or two intervals of a few days each, the flow being rather profuse but with no clots. She has had occasional pains deep in the left side. This p ainis especially severe after micturition, for which reason, patient has always tried to hold her water as long as possible. Tumor is now easily movable into right hypochondrium. She knows it has increased in size, as she has had to loosen her clothing. She had derived some relief from a bandage, which however she left off as it incommoded her.

Complains of having felt miserably the past week, and last night the flow was "quite profuse." Appetite failing for the past week. Tongue slightly coated. Bowels, formerly inclined to be constipated, have been regular for some time past. Slight headache for a day or two. Pulse 90. Has been taking and is ordered to continue

℞ Fld. Ext. Ergot. *fl.* ʒss. *ter die.*
℞ Acid. Gallic. grs. viii. *ter die.*

Jan. 18th.—More pain at intervals. Flowing still, though the amount is diminishing. Feels weak, as she thinks, from loss of blood.

Jan. 19th.—Skin rather warm. Tongue slightly coated. Pulse 100. Cannot lie with legs extended. Abdominal pain quite severe, occurring at intervals. Entire loss of appetite.

Jan. 20th.—Patient lies on back most of the time. Can extend legs without difficulty. Pains come on at intervals, between which she is comparatively comfortable. Vomited several times yesterday. Flowing has about ceased. Pulse 120, strong. Omit medicine. Morphine *pro re nata.* Turpentine stupe.

Jan. 21st.—Face less expressive of pain. Lies on right side with knees drawn up, but can extend them without pain. Pulse 104. Respiration 52, entirely thoracic. Temperature 102½°. Some vomiting. Tenderness confined to right side.

Jan. 22d.—Pulse 104. Respiration 36. Temperature 102°. Easier. Free from pain when quiet.

Jan. 23d.—Easier. Pulse 108. Respiration 48.

Jan. 28th. Tenderness having disappeared, an examination was made and the tumor was found to be much diminished in size and ill-defined. It is still somewhat elastic and elevates the abdominal walls a very little. Patient has had no discharge from vagina or rectum to account for this change.

February 7th. — Steady improvement having continued till date, she was discharged at her own request. At the time of her discharge the tumor was felt to be an elongated, hard mass, lying parallel with and to the right side of the vertebral column. The uterus and pelvic contents were fixed, the womb being glued down and immovable. This condition is exactly opposite to that of her commencing sickness, when the uterus was perfectly movable and a round elastic tumor could be moved about in the abdomen by external manipulation.

Dr. Abbot questioned whether this was not a case of movable kidney, with some inflammatory complication. The fact of casts having been found in the fluid which followed the tapping, the elongated shape of the tumor, its final location near the spine, its great mobility and its freedom from any attachment to the uterine appendages, all agreed exactly with the conditions in several cases of movable kidney which he had seen, and seemed to point to this diagnosis.

Case of Occipito-pubic Presentation. Version. Child dead.

Dr. Wellington reported the following case.

The patient had been confined seven times before. She had been suffering from what were reported to be labor pains for nearly a fortnight when Dr. Wellington first saw her. The uterus was very high up, the os being considerably dilated. The membranes were unruptured. At the time of his second visit a few hours later, the pains had increased in severity, and the membranes were protruding. The head presented, but in which position could not be made out. Dr. Wellington ruptured the membranes; but though the pains became very severe the head did not advance. On making a more careful examination, the anterior fontanelle was found directly behind the symphysis pubis. The sagittal suture corresponded exactly with the line of the antero-posterior diameter. The patient was etherized and efforts were made to turn the head. This could easily be done ; but it was found impossible to turn the child's body with it or to keep the head in position after turning it ; podalic version was therefore performed. Some difficulty was experienced in extracting the head, on account of a slight projection of the sacral prominence. The child was born dead, owing probably to prolonged pressure on the cord.

Dr. Wellington said he had never seen but one other case of this presentation. In this the head righted itself and labor terminated naturally. In the case he had just reported the patient suffered from very severe afterpains, accompanied by considerable hæmorrhage. After the removal, however, of a clot from the uterus, both the pains and the flowing ceased. The patient made a slow recovery.

RHODE ISLAND MEDICAL SOCIETY.

The quarterly meeting of the Rhode Island Medical Society was held in Providence on the 18th instant.

Dr. F. H. Peckham, Sr., for the committee appointed to consider the resolutions sent to this Society by the Committee on Education of the American Medical Association in regard to elevating the standard of medical education by the united action of all the State Medical Societies of the country, said the committee deemed it unnecessary to report except on two propositions.

First—As to the appointment of a Board to examine those who propose to practise medicine. The committee were of the opinion that our present organization, with a Board of Censors, answers as well as the one proposed in securing a high standard in our members.

Second—As to a Board to examine students of medicine in their preliminary education. The committee think the object proposed a very important one, and believe this Society will coöperate in any wise plan to raise the standard of education in our pupils. The details for any specific plans for this purpose the committee referred to the Society.

Dr. W. O. Brown read extracts from Hallier's Parasitological Investigations upon the Vegetable Organisms found in smallpox, cholera, &c.

The reading was in reference to the fermentation theory of disease, as proved by the various forms of microscopic fungus developed in the blood and excretions of the body.

Dr. Snow stated that the theories of the German doctors had been disproved in some points by Dr. Billings, of Washington.

Dr. George Capron read a paper on the "Abuse of Cathartics." He thought a great improvement had taken place in the use of cathartics since he commenced practice.

Dr. A. R. Becker, appointed to read a paper at this meeting, not being prepared, made a verbal statement of his experience in the treatment of "Dysmenorrhœa," and his method of practice in several cases successfully treated. The statement of Dr. B. awakened considerable interest, and discussion on the subject by Drs. Garvin, Perry, Clapp and others.

Dr. E. M. Snow, Superintendent of Health of Providence, was interrogated by a number of the members of the Society in relation to various phases and peculiarities of the smallpox.

Dr. Clapp gave an account of the origin of three cases in Pawtucket, all originating from one man who is supposed to have brought the disease from Boston. Dr. C. referred to the praiseworthy promptness of the Board of Health in Pawtucket in reference to providing accommodations for smallpox patients. The town authorities gave an order to a building firm in that place one morning, and before dark of the same day they had a comfortable building *completed* and ready for occupancy.

The following named persons, having presented written applications for admission as members of the Society, were approved by the Censors :—

Phanuel E. Bishop, M.D., of Pawtucket;
George B. Haines, M.D., of Valley Falls;
John W. Mitchell, M.D. of Providence ;
Wallace W. Potter, M.D., of Providence ;
James E. Tobey, M.D., of Central Falls;
Miss Anita E. Tyng, of Providence.

The above-named gentlemen were all elected by ballot unanimously, and during the balloting further remarks were made upon the subject of smallpox by Drs. Perry and Whitney.

After a spirited discussion, a ballot was then taken on the admission of Miss Anita E. Tyng, as a Fellow of the Society, and she was elected by a vote of 24 yeas to 9 nays, receiving more than the two-thirds vote required for admission.

Drs. Henry King, of Providence, J. M. Marchant, of Warren, Robert Miller, of Providence, were appointed by the President to read papers before the Society at the next quarterly meeting in March, 1873.

On motion, it was voted to hold the next meeting of the Society in Providence, at the same place, and the Secretary and Treasurer were instructed to provide a collation for that occasion, at the expense of the Society.

Dr. E. M. Snow moved that a special committee be appointed by the President to examine the by-laws, and obtain legal advice, if desirable, upon the question, whether, according to a strict construction of said By-Laws, all the new members admitted by ballot as Fellows of the Society at this meeting, were *legally* elected and entitled to all the rights and privileges of its membership, and report at the next meeting. The motion was adopted, and Dr. Snow appointed as said committee. On motion, the meeting was then adjourned to the third Wednesday in March, 1873, at 10 o'clock, A.M.

Medical and Surgical Journal.

Boston: Thursday, December 26, 1872.

FIRE-PROOF BUILDINGS.

All the world knows the sad story, scarcely a month old, regarding the city which so many of us hold dear; and tens of thousands will retain to their dying hours a recollection of the awful sights which met them on those eventful days, when our entire city seemed doomed to destruction. We learned many lessons during those brief hours; we felt that we paid a bitter price to be taught that specimens of igneous rock, in the form of wall and pillar and cornice, were not proof against fire; and the name of the French architect still call up a shudder of insecurity as we remember the flames leaping from roof to roof.

But the fire has benefited us in some directions, and the secular journals give us numberless accounts of heroism, of energy and spirit, of trial and self-sacrifice, hitherto latent, perhaps, which show the fire to have been by no means an unmixed evil.

An occasion of this kind calls to our minds the fact of insecurity of property in various directions, and we should not allow the horse, which remains, to be stolen for want of care in closing the stable door. Within a block of the spot where the fire was arrested is situated one of the finest professional museums in the country; at the medical college in North Grove Street —nearly surrounded by buildings of the poorest and most combustible character— is the valuable Warren Museum; both of them the result of professional work for years of the most eminent men of our neighborhood—both of them owing much of their importance to the life-long labors of one who is held by the profession universally with respect and regard. We call to mind the fact that Dr. Wigglesworth's Museum of Dermatology and Syphilography is situated in a very insecure building; and that numerous private collections are in positions where they are in constant danger of destruction.

It becomes, therefore, a serious question, and should engage the attention of wealthy members of the profession, both in Boston and elsewhere, whether the collections, to which we looked for instruction in our earlier days, and which may be the means of education to those who come after us, shall be allowed to remain in situations so hazardous.

Boston—thank God—needs no assistance, so far as the business resources of all classes of our population, from the highest to the lowest, are compromised; but the institutions of learning in our midst belong to the land, and, in their distress, all suffer. The circular letter of President Eliot informs us that Harvard University has been seriously crippled in all its departments, medical as well as academical, by the late fire. The medical school, which, in the cause of true medicine is striving to give better, more thorough and more scientific knowledge to the whole country, is embarrassed. Our valuable collections are to become the property of the school as soon as suitable buildings are provided for their protection; but they are now liable at any time to be devoured by the flames. These are facts. We do not suggest any course of action to Harvard's prosperous alumni, wherever resident; such suggestions can easily be made by each one for himself.

THE EFFECTS OF HIGH ELEVATIONS ON THE SYSTEM.—According to Prof. Bert *(Jour. de Med. et Chir. Prat.)* modern biologists have wrongly attributed mountain-disease *(mal des montagnes)* to a too great proportion of carbonic acid dissolved in the blood. It is rather due to a disoxygenation which exists in proportion to the diminution of barometric pressure. Thus is confirmed the opinion of Jourdanet on the anæmic, or anoxyemic condition of men inhabiting high regions, as the Mexican plateaus, where he made his observations.

Mr. Bert also examined the effects of increased barometric pressure, as endured by submerged bridge-builders, divers and pearl-fishers, and explained certain accidents common to such occupations, among others that of sudden paralysis following a rapid passing from very high to normal pressure.

An hypothesis of M. Bouchard, in his introductory thesis, has been justified by an experiment of M. Bert. It is quite possible, said M. Bouchard, that these accidents are due to a considerable disengagement of gas from the blood; as effervescence is caused in gaseous water on its return to normal pressure when the bottle is uncorked. The presence of gas in the blood was demonstrated by M. Bert as follows: a cat, submitted to a pressure of eight atmospheres and rapidly removed from it, was almost immediately struck with paraplegia. Autopsy disclosed a non-hæmorrhagic softening of the spinal marrow and *gas in the bloodvessels.*

A practical conclusion from these investigations of M. Bert, applicable to occupations pursued under high pressure, is to supply, not pure air, but a mixture of air and nitrogen, in such a manner as to suitably reduce the pressure of the oxygen.

THE SOURCE OF DEATH FROM POISONS.—In an article from the *Med. Times and Gaz.* Oct. 19, 1872, suggested by some recent cases of alleged poisoning, occurs the following:

"A very common mistake we often see reproduced at trials is that of saying 'enough poison was found in the stomach to account for death.' Very often, in cases of poisoning, there is hardly any poison found in the stomach, and in many where it is found, has nothing to do with causing death. Take a case of poisoning by strychnine, for example; it is not the strychnine found in the stomach, but that which has been absorbed, and reached the nervous system, which has caused death. This is only partially true in the case of arsenic, but even here the fact ought not to be overlooked."

Correspondence.

VIVISECTION.—Messrs. Editors: The following forcible lines are extracted from an able and comprehensive paper on the "Consciousness of Animals" in the last British Quarterly Review and which occupies about eighteen pages of the December number of Littell's Living Age. H. J. B.

"Lastly, *faith* in a beloved superior is perhaps the most beautiful and affecting of all the attributes of a dog. Whose heart does not grow sick at the reflection that this sacred trust of the dog in man, should be so often betrayed,—that dull boors should lure him by mock words of encouragement to death (to him so slow and agonizing) of the halter; and that far worse wretches, in the guise of cultivated gentlemen, should first fondle, and then dissect him alive, while even in death he strives to show his confidence, and to lick their hands? Few of us, it is to be hoped, would purchase our own immunity from disease at the cost of scores of such cruel experiments, and the assurance of the vivisectors who perform them, that they do so wholly for our sakes, and not from mere scientific curiosity, would be laughable, could we find it in our hearts to laugh at such matter. It is surely time for the world to recognize that Science may be the Moloch of one age as Superstition was of another; and that even the noble love of knowledge may prompt offences, heinous and hateful as ever sprung from the lust of power or of gold.

"The princely motto "Ich dien," might justly be his, for he lives but to serve and obey to the utmost of his strength and intelligence.

"He grudges nothing for his master, resents nothing that he does to him, and trusts him even when, like the miserable French vivisector, he tries on him an 'expérience morale,' and tests how much torture he will bear before his love turns to fear and hate."

Medical Miscellany.

The Bigelow Operating Chair.—The surgeons of the Boston City Hospital are fortunate in having at last one of these incomparable chairs for their use in operations. Eight years ago, at the opening of the hospital, they were provided by the trustees with a common barber's chair. It was intended, however, that this should be replaced by a more satisfactory article at an early day. The chair which they are to use in the future was made by the same maker and of the same pattern as that so well known at the Massachusetts General Hospital. The original was designed by Dr. H. J. Bigelow, has been in constant use for the past 18 years, and, except a new covering, has never needed repair. Dr. Cheever, in showing the chair to the physicians and members of the medical class a few days ago, stated that it was, in his opinion, superior to any he had seen in the operating theatres in Europe.

"Palpation in Obstetrics as Practised in Germany."—"Under this title, Dr. Chadwick has published a highly interesting paper in the *Boston Medical and Surgical Journal* for August 15th and 22d. It is far too long for extract, and will not admit of abbreviation, consisting, as it does, of detailed instructions for the practice of palpation as witnessed by the author in Vienna and Würzburg clinics, where it has attained an importance unknown in other countries. The paper is of more interest because no detailed account of the procedure has been published even in the German midwifery works."

The above extract is taken from the *London Medical Times and Gazette* for Oct. 26th ult.

Eight Children at a Birth.—Now that this item, accredited to this Journal, has gone the rounds of the medical press in this country and abroad, and has elicited various comment with regard to the doubt of such a tremendous obstetrical feat, we are glad to send another item after the first to contradict the story, and to say that such a performance never occurred and that we never believed it did.

The Trustees of "the Toner Lectures," Washington, D.C., have already completed arrangements with eminent medical gentlemen for the three first lectures under this trust. The first of the course will be delivered in February, 1873, by J. J. Woodward, M.D., U.S.A., at present in charge of the Army Medical Museum. The second will be delivered in April, 1873, by Prof. C. E. Brown-Séquard, M.D., and the third, some time in the fall or winter of 1873, by Prof. Alonzo Clarke, M.D., of New York.

Matthew Vassar and John Guy Vassar have decided to invest $100,000 in the founding of a hospital in Poughkeepsie, N. Y.

Albany Hospital.—By the will of the late William H. DeWitt, the Albany Hospital receives ten thousand dollars.

Correction.—On page 435 of the Journal, second column, first line, for "during the past four years" read *during the past few years.* On page 396, first column, the statement in lines 25–28 was made by Dr. Johnson in regard to such cases in general, and not in reference to the six cases previously mentioned.

Books Received.—Physics and Politics; or Thoughts on the application of the Principles of "Natural Selection" and "Inheritance" to Political Society. By Walter Bagshot, Esq. New York: D. Appleton & Co. 1872. Pp. 224. (From A. Williams & Co.)—Surgical Diseases of Infants and Children. By M. P. Guersant, Honorary Surgeon of the Hôpital des Enfants Malades, Paris, &c. Translated from the French by Richard J. Dunglison, M.D. Philadelphia: H. C. Lea. 1873. Pp. 354. (From the Publishers.)

Pamphlets Received.—An Examination of Prof. Reese's "Review of the Trial of Mrs. Wharton for the Murder of Gen. Ketchum. By Philip C. Williams, M.D. Baltimore, Md. 1872. Pp. 31.—Transactions of the New Hampshire Medical Society (Eighty-second Anniversary) held at Concord, June 11 and 12, 1872. Manchester, N. H., 1872. Pp. 96.—Free Parks and Camping Grounds, Sanitariums for the Sick and Debilitated Children of large Cities during the Summer Months. By J. M. Toner, M.D., Washington, D. C. Pp. 16.

Died,—In Worcester, Dec. 7th, John Andrews. M.D., formerly of Boylston, 79.

Deaths in sixteen Cities and Towns of Massachusetts, for the week ending Dec. 14, 1872.

Cities and Towns.	*No. of Deaths.*
Boston	188
Charlestown	15
Worcester	18
Lowell	14
Milford	4
Chelsea	7
Cambridge	24
Salem	11
Lawrence	8
Springfield	7
Lynn	18
Fitchburg	3
Newburyport	4
Somerville	5
Haverhill	3
Holyoke	6
	335

Prevalent Diseases.

Smallpox	70
Consumption	43
Pneumonia	26
Scarlet Fever	20
Typhoid Fever	16
Croup and Diphtheria	7

The deaths from smallpox were as follows:—In Boston, fifty-one, Cambridge six, Charlestown five, Lynn three, Chelsea three, Lawrence one, Holyoke one. Of the deaths from scarlet fever eighteen were in Boston.

George Derby, M.D.,
Secretary of State Board of Health.

Deaths in Boston for the week ending Saturday, December 21st, 196. Males, 109; females, 87. Accident, 6—asthma, 1—inflammation of the bowels, 2—disease of the bowels, 1—bronchitis, 4—disease of the brain, 5—cancer, 2—cerebro-spinal meningitis, 2—consumption, 24—convulsions, 4—croup, 2—debility, 1—diarrhœa, 2—dropsy, 2—dropsy of brain, 1—scarlet fever, 6—erysipelas, 1—typhoid fever, 4—bilious fever, 1—disease of heart, 7—infantile, 1—intemperance, 2—disease of kidneys, 4—laryngitis, 1—disease of the liver, 2—congestion of the lungs, 3—inflammation of the lungs, 8—marasmus, 5—measles, 1—old age, 6—paralysis, 3—pleurisy, 1—puerperal disease, 2—premature birth, 1—peritonitis, 2 disease of the stomach, 1—smallpox, 69—tonsillitis, 1—ulcer, 1—unknown, 4.

Under 5 years of age, 48—between 5 and 20 years, 18—between 20 and 40 years, 71—between 40 and 60 years, 30—above 60 years, 29. Born in the United States, 109—Ireland, 56—other places, 31.

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